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NEW APPLICATION

Arizona Corporation Commission

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Attorneys for Arizona-American

Water Company

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W-01303A-02-0896

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE
APPLICATION OF ARIZONA-
AMERICAN WATER COMPANY, AN
ARIZONA CORPORATION, FOR A
DETERMINATION OF THE
CURRENT FAIR VALUE OF ITS
UTILITY PLANT AND PROPERTY
AND FOR INCREASES IN ITS
RATES AND CHARGES BASED
THEREON FOR UTILITY SERVICE
BY ITS TUBAC WATER DISTRICT

DOCKET NO. W-01303A-02-_____

APPLICATION

Arizona-American Water Company, an Arizona corporation ("Arizona-American" or "the Company"), hereby applies for an order establishing the fair value of Arizona-American's plant and property used for the provision of public utility service by the Company's Tubac water district and, based on such fair value, approving permanent rates and charges for utility service provided by said district designed to produce a fair return thereon. In support thereof, Arizona-American states as follows:

1. Arizona-American is a public service corporation engaged in providing water and wastewater utility services in portions of Maricopa, Mohave and Santa Cruz Counties, Arizona, pursuant to various certificates of public convenience and necessity granted by the Arizona Corporation Commission (the "Commission") to Arizona-American and its predecessors in interest. At the present time, the Company provides utility service to approximately 115,000 customers in Arizona.

1 2. The Company's central business office is located at 19820 North Seventh
2 Street, Suite 201, Phoenix, Arizona 85024, and its telephone number is (623) 445-2400.
3 The Company's President and primary management contact is Ray L. Jones.

4 3. The persons responsible for overseeing and directing the conduct of this rate
5 application are B. Kent Turner and David P. Stephenson. Mr. Turner is the Company's
6 Vice President and Treasurer as well as the Vice President-Finance and Chief Financial
7 Officer of the Western Region of American Water Works Service Company, Inc. Mr.
8 Stephenson is the Assistant Treasurer of Arizona-American as well as the Director of
9 Rates and Planning of the Western Region of American Water Works Service Company,
10 Inc. Mr. Turner and Mr. Stephenson's office and mailing addresses are 303 H Street,
11 Suite 250, Chula Vista, California 90910. Mr. Stephenson's telephone number is (619)
12 409-7712; his telecopier number is (619) 409-7701. **All discovery, data requests and**
13 **other requests for information concerning this Application should be directed to Mr.**
14 **Stephenson, with a copy to undersigned counsel for the Company.**

15 4. In this Application, the Company seeks a determination of the current, fair
16 value of its property devoted to public service and approval of permanent adjustments to
17 its rates and charges for utility service based thereon for the Company's Tubac water
18 district, which currently serve approximately 500 customers in Santa Cruz County,
19 Arizona.

20 5. The Tubac water district's present rates and charges for utility service were
21 approved by the Commission in Decision No. 60172 (May 7, 1997) based on a test year
22 that ended March 31, 1995. Thus, this is the first general increase in rates and charges
23 requested for the Tubac water district for approximately 7 years.

24 6. Arizona-American maintains that revenues from the Tubac water district's
25 utility operations are presently inadequate to provide the Company a fair rate of return on
26 the fair value of its utility plant and property devoted to public service. The Company's

1 rate base has increased substantially since the previous rate proceeding, and the Company
2 is annually adding additional utility plant to each of its water and wastewater systems in
3 order to ensure safe and reliable utility service to its customers. These increases in the
4 Company's fair value rate base, together with increases in certain expenses and changes in
5 circumstances since the test year in the prior rate proceeding, have caused the revenues
6 produced by the current rates and charges for service to become inadequate to meet
7 operating expenses and to provide a reasonable rate of return. Therefore, the Company
8 requests that certain adjustments to its rates and charges for utility service furnished by its
9 Tubac water district be approved by the Commission so that the Company may earn a just
10 and reasonable rate of return on the fair value of its property.

11 7. Filed concurrently herewith as separately bound exhibits are the schedules
12 required pursuant to A.A.C. R14-2-103 for the rate applications by Class "A" water and
13 wastewater utilities, with the exception of the schedules labeled "G" (cost of service
14 analysis). The latter schedules have been omitted because the Company does not propose
15 to change its rate design, including the allocation of the revenue requirement between
16 customer types from that approved by the Commission when it established the Company's
17 current rates for the Tubac water district. The test year utilized by the Company in
18 connection with the preparation of such schedules is the 12-month period that ended
19 December 31, 2001. The Company requests that the Commission utilize such test year in
20 connection with this Application, with appropriate adjustments for utility plant that has
21 been completed and placed in service to serve existing customers by December 31, 2002,
22 and appropriate adjustments to in the Company's operating expenses in order to obtain a
23 normal or more realistic relationship between revenues, expenses and rate base during the
24 period in which the rates established in this proceeding are in effect.

25 8. During the test year, the Company's adjusted gross revenues for the Tubac
26 water district was \$254,486. The adjusted operating income for the Tubac water district

1 was (\$15,123). The adjusted fair value rate base was \$1,903,764 for the Tubac water
2 district. Thus, the rate of return on the Tubac water district's rate base during the test year
3 was negative (0.79%). The Company submits that this rate of return is inadequate to
4 allow it to service its debt, pay a reasonable dividend to its stockholders, maintain a sound
5 credit rating, and enable Arizona-American to attract additional capital on reasonable and
6 acceptable terms in order to continue the investment in utility plant necessary to
7 adequately serve customers in the Tubac water district.

8 9. The Company is requesting an increase in revenues equal to \$264,758 for
9 the Tubac water district which constitutes an increase in revenues of nearly 105%.
10 However, in order to ameliorate the impact of necessary rate increase in the Tubac water
11 district, Arizona-American proposes to phase in the rate increases, with rates increasing
12 by 40% in the first full billing cycle following the Commission's decision and the balance
13 of the increase becoming effective 12 months later. The adjustments to the Company's
14 rates and charges that are proposed herein, when fully implemented, will produce a rate of
15 return on the fair value rate base equal to 7.75% for each district, which is approximately
16 equal to interest rates payable on investment-grade utility bonds at the present time.

17 10. Filed concurrently in support of this Application is the following Direct
18 Testimony:

19 (a) **David P. Stephenson** (overview of the Company's rate filing, background
20 concerning Arizona-American's purchase of Citizens Communications'
21 water and wastewater utility assets in Arizona, discussion of various
22 adjustments made to actual test period results, discussion of the components
23 of the Company's capital structure and discussion of compliance with
24 Commission Decision No. 63584 (April 24, 2001));

25 (b) **Robert J. Kuta** (overview of the Tubac water district and discussion of
26 certain post-Citizens' acquisition office relocations and staffing changes

1 made by Arizona-American);

2 (c) **Blaine Akine** (discussion of post-test year plant additions);

3 (d) **B. Kent Turner** (background on Arizona-American and American Water
4 Works Service Company and discussion of services provided to Arizona-
5 American);

6 (e) **Thomas J. Bourassa** (discussion of the revenue requirement, including the
7 "A" through "F" schedules, development of the rate base and income
8 statement adjustments);

9 (f) **Thomas M. Zepp** (cost of equity capital and related issues); and

10 (g) **Ronald L. Kozoman** (proposed rates, including the "H" schedules, and
11 discussion of the effects of the proposed rates on customers' bills,).

12 This direct testimony is contained in a separately bound volume filed with this
13 Application.

14 WHEREFORE, the Company requests the following relief:

15 A. That the Commission, upon proper notice and at the earliest possible time,
16 conduct a hearing in accordance with A.R.S. § 40-251 and determine the fair value of
17 Arizona-American's utility plant and property devoted to public service in the Company's
18 Tubac water district;

19 B. Based upon such determination, that the Commission approve permanent
20 adjustments to the rates and charges for utility service provided by the Tubac water
21 district, as proposed by the Company herein, or approve such other rates and charges as
22 will produce a just and reasonable rate of return on the fair value of the Company's utility
23 plant and property for these districts; and

24 C. That the Commission authorize such other and further relief as may be
25 appropriate to ensure that the Company's Tubac water district has an opportunity to earn a
26 just and reasonable return on the fair value of their utility plant and property and as may

1 otherwise be required under Arizona law.

2 RESPECTFULLY SUBMITTED this 10th day of December, 2002.

3 FENNEMORE CRAIG

4
5 By 

6 Norman D. James
7 Jay L. Shapiro
8 3003 North Central Avenue
9 Suite 2600
10 Phoenix, Arizona 85012
11 Attorneys for Arizona-American
12 Water Company

13 ORIGINAL and thirteen (13) copies of the
14 foregoing, together with the separately bound
15 schedules and direct testimony supporting
16 this application, were delivered
17 this 10th day of December, 2002, to:

18 Docketing Supervisor
19 Docket Control Division
20 Arizona Corporation Commission
21 1200 W. Washington St.
22 Phoenix, AZ 85007

23
24
25 By: 
26

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NEW APPLICATION

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Arizona Corporation Commission

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IN THE MATTER OF THE
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FAIR VALUE OF ITS UTILITY PLANT
AND PROPERTY AND FOR INCREASES
IN ITS RATES AND CHARGES BASED
THEREON FOR UTILITY SERVICE BY
ITS TUBAC WATER DISTRICT

DOCKET NO. W-01303A-02-_____

DIRECT TESTIMONY

STEPHENSON

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4 Attorneys for Arizona-American
Water Company
5
6

7 **BEFORE THE ARIZONA CORPORATION COMMISSION**

8 IN THE MATTER OF THE
9 APPLICATION OF ARIZONA-
AMERICAN WATER COMPANY, AN DOCKET NO. W-01303A-02-_____
10 ARIZONA CORPORATION, FOR A
DETERMINATION OF THE
11 CURRENT FAIR VALUE OF ITS
UTILITY PLANT AND PROPERTY
12 AND FOR INCREASES IN ITS RATES
AND CHARGES BASED THEREON
13 FOR UTILITY SERVICE BY ITS
TUBAC WATER DISTRICT.

14
15 **DIRECT TESTIMONY**
16 **OF**
17 **DAVID P. STEPHENSON**
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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND TELEPHONE**
3 **NUMBER.**

4 A. My name is David P. Stephenson. My business address is 303 H Street, Suite 250,
5 Chula Vista, California 91910. My telephone number is (619) 409-7700.

6 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

7 A. I am employed by American Water Works Service Company, Inc. ("Service
8 Company"), as the Director of Rates and Planning for American Water Works
9 Company, Inc.'s ("AWW") Western Region. The Western Region includes
10 AWW's water and wastewater utilities located in Arizona, California, Hawaii,
11 New Mexico and Texas, including Arizona-American Water Company ("Arizona-
12 American" or "Company"). I am also an Assistant Treasurer for Arizona
13 American.

14 **Q. PLEASE BRIEFLY OUTLINE YOUR RESPONSIBILITIES AS THE**
15 **DIRECTOR OF RATES AND PLANNING.**

16 A. I am responsible for directing preparation of all rate applications and various other
17 matters related to rates and charges for utility service with the public utility
18 commissions that regulate AWW's operating utilities in Arizona, California,
19 Hawaii, New Mexico and Texas. I am also responsible for overseeing other rate
20 related proceedings before these commissions such as acquisition and financing
21 applications.

22 **Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

23 A. I received a Bachelor of Science in Business Administration, with emphasis in
24 Accounting, from San Diego State University in 1977.

25 **Q. HAVE YOU HAD ANY OTHER FORMAL TRAINING?**

26 A. Yes, I have attended many seminars on various aspects of the water industry and

1 rate applications, including the National Association of Regulatory Utility
2 Commissioners (NARUC) biannual Utility Rate Seminar.

3 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.**

4 A. I have been employed by the American Water System since 1978. The various
5 positions I have held within the American Water System are: Accountant - 1978;
6 Accounting Superintendent for the Los Angeles Region - 1981; Assistant Director
7 of Accounting for the operating utilities in the Western Region - 1983; Assistant
8 Director of Rates and Revenues for the operating utilities in the Western Region -
9 1984; Director of Rates and Revenues for the operating utilities in the Western
10 Region - 1986, and Director of Rates and Planning for the operating utilities in the
11 Western Region since 2001.

12 **Q. HAVE YOU HAD ANY OTHER PROFESSIONAL EXPERIENCES?**

13 A. Yes, I served on the Accounting Committee of the California Water Association
14 and have been an instructor at the NARUC biannual Utility Rate Seminar on eight
15 occasions.

16 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE UTILITY
17 REGULATORY COMMISSIONS?**

18 A. Yes, I have testified before the Arizona Corporation Commission ("Commission")
19 in rate and acquisition proceedings for Arizona-American; before the California
20 Public Utilities Commission on many occasions for all of the California-American
21 Water Company systems; and before the New Mexico Public Regulation
22 Commission in many types of proceedings on behalf of New Mexico-American
23 Water Company.

24 **II. PURPOSE OF TESTIMONY, SUMMARY AND CONCLUSIONS**

25 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS
26 PROCEEDING?**

1 A. The purposes of my testimony are to: (1) identify and explain the Company's rate
2 filing; (2) provide background concerning the purchase of the former Citizens
3 Communications' water and wastewater utility assets in Arizona ("Citizens'
4 Assets") by Arizona-American (the Citizens' Acquisition); (3) explain and support
5 various adjustments made to the test period actual results; (4) explain and support
6 all components of the capital structure except for cost of equity; and (5) to discuss
7 the specific requirements set forth in Decision 63584 (April 24, 2001), which
8 authorized Arizona-American to purchase the Citizens' Assets ("Acquisition
9 Decision").

10 Q. **WHAT DO YOU MEAN THE "COMPANY'S RATE FILING"?**

11 A. I mean the five (5) separate applications for rate relief being filed with the
12 Commission in 2002. This filing follows our efforts to determine the best
13 approach to file rate applications for a substantial number of systems in a manner
14 that would make the most sense for both public presentation and ease of handling
15 for the Commission's Utilities Division Staff ("Staff").

16 Q. **YOU ALSO USED THE TERM "SYSTEM." ARE YOU REFERRING TO**
17 **"SYSTEM" IN A LEGAL OR OTHER SPECIFIC SENSE?**

18 A. No, I am using the term "system" in a more general sense. By way of background,
19 as I mentioned earlier, Arizona-American acquired all of the water and wastewater
20 assets of Citizens in Arizona in a transaction that closed earlier this year.
21 Previously, Citizens' Assets were under a different ownership structure with a
22 number of separate corporate entities, such as Sun City Water Company, Sun City
23 West Utilities Company or the Agua Fria Water Division of Citizens
24 Communications Company, for example. However, Arizona-American acquired
25 only the assets – not the stock. Therefore, the assets were removed from separate
26 ownership and now all fall under the ownership umbrella of Arizona-American.

1 Q. HOW DOES ARIZONA-AMERICAN REFER TO THESE SEPARATE
2 GROUPS OF ASSETS INTERNALLY?

3 A. Generally we use the term "district" to refer to a separate area within Arizona-
4 American where, for accounting purposes, we individually account for revenues
5 and expenses, and maintain separate balance sheets. These areas generally
6 coincide with areas where the same tariffs apply and in that sense, a district could
7 be identified as a "tariffed area." Of course, reference to the "Tubac water tariffed
8 area" or the "Sun City West water tariffed area" would be awkward, and for
9 purposes of the Company's rate filing, we basically use the terms "district" or
10 "system" interchangeably and neither is intended to denote the actual name of any
11 particular corporate entity or to designate an operational or other system as such
12 term is used by ADEQ or any other regulatory agency to identify water or
13 wastewater systems in Arizona.

14 Q. THANK YOU MR. STEPHENSON. WOULD YOU PLEASE CONTINUE
15 WITH YOUR DISCUSSION OF HOW THE COMPANY ULTIMATELY
16 DECIDED THE BEST WAY TO ORGANIZE THE COMPANY'S RATE
17 FILING?

18 A. Certainly, again from a public perspective, it was determined that it made sense to
19 file separate applications for the Sun City and Sun City West districts. These four
20 districts, two water and two wastewater systems, are relatively large in size and
21 have certain unique characteristics and circumstances that distinguish them from
22 the other Arizona systems. The third application consists of two water systems in
23 Mohave County, the Mohave water district, which provides water service in the
24 vicinity of Bullhead City, and the Havasu water district, which provides service
25 near Lake Havasu City. These systems are close together and operated by
26 essentially the same Company personnel. The fourth application being filed is the

1 combination of Agua Fria water district and the water and wastewater systems
2 serving the Anthem development in Maricopa County. These utility systems
3 primarily serve recent developments and have very similar operating procedures.
4 The final application is for the small Class C water system known as the Tubac
5 water district in Santa Cruz County. This system is distinctive based on its small
6 size, limited revenues and location. Again, for convenience, I will sometimes refer
7 to the five applications as the Company's rate filing. And, again, I want to
8 emphasize that the terms "system" and "district" should be considered synonymous
9 throughout the Company's rate filing.

10 **Q. ALL OF THESE DISTRICTS OR SYSTEMS ARE PART OF THE**
11 **CITIZENS' ACQUISITION, CORRECT?**

12 **A.** That is correct. I should also note that none of the former Citizens' systems have
13 received any recent rate increases. Citizens Agua Fria Water Division, Sun City
14 Water Company, Sun City Sewer Company, Sun City West Utilities Company and
15 Tubac Valley Water Company last rate order was issued in May 1997 based on test
16 years ending March 31, 1995. Decision No. 60172 (May 7, 1997).¹ Citizens
17 Mohave Water and Wastewater Divisions last received rate increases in February
18 1990, based on test years ending March 31, 1988. Decision No. 56806 (Feb. 1,
19 1990). Likewise, Havasu Water Company last received rate increases in February
20 1992, based on a test year ending December 31, 1990. Decision No. 57743 (Feb.
21 21, 1992). It appears that once Citizens decided to sell its water and wastewater
22 systems in 1999, it elected not to seek rate increases and, in some cases, to accept
23 operating losses. This situation has caused Arizona-American to seek rate

24 ¹ In Decision No. 60172, rates for Sun City Water Company and Sun City West Utilities'
25 rates for water service were actually reduced. I also understand the Sun City West
26 Utilities' rates for both water and wastewater service were reduced in the prior rate
proceeding, as were Sun City Water Company's rates. Decision No. 55488 (March 17,
1987).

1 increases more quickly than it anticipated. However, a delay in obtaining rate
2 increases and correcting these systems' anemic earnings would be harmful to the
3 Company and, ultimately, to its customers.

4 **Q. WHAT ARE YOUR OVERALL RESPONSIBILITIES IN THIS CASE?**

5 A. I have been responsible for the coordination and supervision of all of the rate case
6 applications discussed including, among other things, selecting the test period and
7 the pro-forma time period for various adjustments, and determining what
8 adjustments need to be included in the filing.

9 **Q. WHAT TEST PERIOD DID YOU DETERMINE WAS APPROPRIATE IN**
10 **THIS CASE?**

11 A. I determined, for ease of presentation, that the period ending December 31, 2001,
12 should be used as the test period for the Company's rate filing. This period closely
13 is aligned with the purchase of the Citizens' Assets by Arizona-American, which
14 transaction closed on January 15, 2002.

15 **Q. DID ARIZONA-AMERICAN OWN THE CITIZENS' ASSETS, OR HAVE**
16 **ANY RESPONSIBILITY FOR THE OPERATING EXPENSES OR THE**
17 **PROVISION OF SERVICE DURING THE TEST PERIOD FOR THE**
18 **SYSTEMS THAT ARE THE SUBJECT OF THE COMPANY'S RATE**
19 **FILING?**

20 A. No. As I stated, the purchase of the Citizens' Assets was not completed until
21 January 15, 2002, on which date Arizona-American assumed operational control
22 and responsibility for the Citizens' Assets.

23 **Q. SINCE ARIZONA-AMERICAN DID NOT OWN AND OPERATE THE**
24 **CITIZENS' ASSETS AND DID NOT HAVE ANY OPERATING**
25 **RESPONSIBILITY FOR THE WATER AND WASTEWATER UTILITY**
26 **OPERATIONS IN 2001, HOW DOES THE COMPANY JUSTIFY FILING A**

1 **RATE APPLICATION WITH A TEST PERIOD ENDING PRIOR TO THE**
2 **COMPLETION OF THE PURCHASE?**

3 A. The recorded operating expenses directly incurred by each district basically remain
4 unchanged following the acquisition. Further, the Commission ordered Citizens to
5 maintain its books and records for a period of 5 years following the closing. It is
6 relatively simple to remove the management and services costs allocated to each of
7 the operating systems by Citizens from the normally-incurred direct operating
8 expenses of these systems. Likewise, it is relatively simple to add in the expected
9 Service Company charges from AWW applicable to Arizona-American.

10 **Q. WHAT PRO FORMA TIME PERIOD HAVE YOU USED FOR EXPENSE**
11 **AND PLANT ESTIMATIONS IN THIS CASE?**

12 A. I am recommending that such adjustments, all of which will be detailed further in
13 the various witnesses' direct testimonies, go no further into the future than end of
14 year 2002. This will provide ample time for Staff to review and analyze these
15 adjustments prior to providing their recommendations in Staff's direct filing.

16 **Q. ARE THERE PRO FORMA ADJUSTMENTS FOR PLANT ADDITIONS?**

17 A. Yes, we have estimated the non-revenue generating plant additions that will be
18 completed and placed in service by the end of 2002, and have included pro forma
19 adjustments that include those additions in utility plant in service. This is
20 consistent with Commission Decision No. 61831 (July 20, 1999) related to the
21 Paradise Valley water district, wherein the Commission ordered the Company to
22 limit pro forma plant additions to those plant items that are used and useful and in
23 service 90 days after the application is deemed sufficient. The December 31, 2002
24 cut-off date proposed by Arizona-American in this case is well within the 90-day
25 deadline established by the Commission.

26 **Q. HOW ARE PRO FORMA ADJUSTMENTS DETERMINED FOR**

1 **OPERATING EXPENSES?**

2 A. Pro forma adjustments for operating expenses are based on known and measurable
3 changes that have or will occur up until the time each rate application is filed to
4 develop a normal 12-month period of operations. This is consistent with A.A.C.
5 R14-2-103(i).

6 **III. ACQUISITION OF THE WATER AND WASTEWATER ASSETS OF**
7 **CITIZENS UTILITIES OF ARIZONA**

8 **Q. WOULD YOU PLEASE BRIEFLY DESCRIBE THE CITIZENS'**
9 **ACQUISITION?**

10 A. By way of background, Arizona-American has owned and operated a water utility
11 system in Arizona, which was formerly known as Paradise Valley Water Company,
12 since the late 1960s. The Paradise Valley water district is relatively small, and
13 currently furnishes service to approximately 5,000 customers. Sometime in 1998
14 or 1999, Citizens Communications Company (formerly Citizens Utility Company)
15 decided to focus its business activities in the telecommunications area, and elected
16 to sell its water and wastewater assets, which were located in six states including
17 Arizona. Arizona-American's parent company, AWW, which is the largest
18 privately-owned water utility system in the United States and whose business
19 activities focus on water and wastewater, entered into negotiations with Citizens.
20 Ultimately, on October 15, 1999, Citizens, Arizona-American and AWW entered
21 into an agreement under which Arizona-American agreed to purchase the Citizens'
22 Assets, which included all of the water and wastewater systems and assets in
23 Arizona.

24 Citizens and its various Arizona water and wastewater subsidiaries, along
25 with Arizona-American, filed an application on March 24, 2000, seeking approval
26 of the transfer of the Citizens' Assets to Arizona-American in Docket Nos. W-

1 01032A-00-0192, et. seq. Later that same year, Arizona-American filed a separate
2 application in Docket No. W-01303A-00-0929 seeking authority to issue certain
3 promissory notes and other evidence of indebtedness and to assume certain
4 industrial development revenue bonds in connection with financing the purchase
5 of the Citizens' Assets. Following notice and a public hearing, the Commission
6 ultimately approved the transfer of the Citizens' Assets in the Acquisition
7 Decision. Attached to the Acquisition Decision and incorporated therein in the
8 second ordering paragraph, was a settlement agreement setting forth specific terms
9 and conditions agreed to by Staff and the Company. These terms and conditions
10 settled one ratemaking issue and set forth deadlines, procedures and filing
11 requirements that Arizona-American is to follow in future rate proceedings. The
12 terms and conditions are as follows:

- 13 1. The ratemaking treatment of the of the acquisition adjustment, deferred taxes,
14 excess deferred taxes and the investment tax credit will be deferred until a
15 future rate case proceeding.
- 16 2. The decision to allow recovery of the acquisition adjustment must be based
17 on Arizona-American's ability to demonstrate that clear, quantifiable and
18 substantial net benefits have been realized by ratepayers, which would not
19 have been realized had the transaction not occurred
- 20 3. The Company must file a report 13 months after the closing of the
21 transaction, comparing the number of complaints received by the
22 Commission prior to and after the transaction.
- 23 4. The adjusted AIAC balance not transferred to Arizona-American as part of
24 the transaction will be imputed ratably into rate base over a 6.5 year period.
25 The balance will be ratably reduced over the 6.5 years utilizing a levelized
26 monthly below the line amortization.

1 A copy of the Acquisition Decision is attached hereto as Stephenson Dir. Exh. 1.

2 Later in 2001, the Commission issued Decision No. 64002 (Aug. 30, 2001)
3 authorizing the debt financing for the purchase of the Citizens' Assets. In
4 summary, the Commission authorized Arizona-American to issue promissory notes
5 and other evidence of indebtedness in an amount not to exceed \$180 million and to
6 issue a promissory note reflecting the obligation associated with assuming
7 Citizens' industrial development revenue bonds in the amount of \$10,635,000.
8 The balance of the purchase price was financed by an infusion of additional paid in
9 equity capital from AWW. In Decision No. 64002, the Commission ordered
10 Arizona-American to increase its equity by at least \$0.69 for each dollar of
11 acquisition in order to maintain a reasonably balanced capital structure.

12 **Q. WHEN DID ARIZONA-AMERICAN FINALIZE THE PURCHASE OF THE**
13 **CITIZENS' ASSETS?**

14 **A.** The transaction was finalized on January 15, 2002, the date title to all of the
15 Citizens' Assets was transferred to Arizona-American. All of the service provision
16 responsibilities were also transferred to Arizona-American on that date. The final
17 Citizens' Asset purchase price was approximately \$276,500,000, and included an
18 initial book acquisition adjustment of approximately \$71,100,000. As Explained
19 in the Direct Testimony of Mr. Joseph Hartnett, appended as Exhibit C to the Joint
20 Application for Authority to Transfer Assets and Related Approvals in Docket
21 Nos. W-01032A-00-0192, et seq., the purchase for the Citizens' Assets was
22 determined by an arms-length negotiation based on the advice of each companies
23 financial advisors. This open market negotiated purchase price then establishes
24 AWW's reasonable investment in the Citizens' Assets. This reasonable investment
25 in the Citizens' Assets was funded by a combination of debt and equity as shown
26 on at the top of the closing journal entry to record the transaction, which is

1 attached hereto as Stephenson Dir. Exh. 2.

2 **IV. POST TEST PERIOD ADJUSTMENTS**

3 **Q. WHAT PRO FORMA ADJUSTMENTS ARE YOU RESPONSIBLE FOR**
4 **SUPPORTING?**

5 A. I am responsible for supporting six adjustments that impact all of the Company's
6 rate filings. The specific adjustments are as follows: 1) capitalization of payments
7 made for the implementation of ORCOM billing software from operating expense
8 and the determination period for the recovery of this expense; 2) the transfer of
9 charges related to the completion of the Citizens' Acquisition, as well as charges
10 for the development of base accounting procedures from expenses to
11 organizational costs; 3) the rationale for the removal of the Citizens' management
12 costs, 4) estimates of Service Company charges; 5) estimates of rate case expense
13 and 6) estimates of direct charges to the systems made by AWW.

14 **Q. WHY HAVE PAYMENTS BEEN MADE FOR THE DEVELOPMENT OF**
15 **THE ORCOM BILLING SOFTWARE?**

16 A. Payments made for the development of the ORCOM billing software have been
17 made in connection with converting all of the Citizens' customers over to the
18 AWW billing system. The payments should be considered as organizational costs
19 or start-up costs. I will refer to these as "start-up costs" for the remainder of this
20 discussion. These start-up costs were for such items as consultants' fees, billing
21 programs modifications and related expenses of AWW associates to assist in the
22 development of the billing system. The billing system had to come on line exactly
23 at the time of closing. Since the acquisition was an asset sale, there was no
24 arrangement between Citizens and AWW for Citizens to continue billing any
25 utility customers after the transaction closed. The ORCOM system had to be up
26 and running, and running properly, at the closing. To the benefit of these

1 customers, AWW has been developing this same system for its own use at all of its
2 present properties, including the Paradise Valley district. This made the time and
3 expense of converting the Citizens' customers to the ORCOM system less
4 burdensome.

5 **Q. WHY WERE THESE COSTS EXPENSED?**

6 A. Over the past few years accounting requirements regarding the booking of these
7 types of start-up costs have changed. Start-up costs historically have been
8 capitalized along with the purchase or development of new assets. This is no
9 longer the case. The Financial Accounting Standards Board has deteremined that
10 too many expenses were being capitalized and companies' balance sheets were
11 being overstated. However, for a regulated utility, the books and records of a
12 company are maintained in acordance with Commission regulations and policy.
13 These start-up costs have always been treated as a capitalized asset, and there is no
14 valid reason to stray from that policy. These start-up costs are incurred for the
15 development of programs to serve new customers. The addition of the new
16 customers lowers the overall fixed costs per customer. This produces a net cost
17 savings. Therefore, all present and future customers should share in both the
18 development costs as well as the savings. Common regulatory practice is to spread
19 the development costs of a cost saving measure over the customer base receiving
20 known and measurable savings.

21 **Q. DOES THIS COMMISSION HAVE JURISDICTION TO OVERRIDE**
22 **ACCOUNTING POLICY AND AUTHORIZE THESE COSTS TO BE**
23 **CLASSIFIED AS A CAPITALIZED START-UP OR ORGANIZATION**
24 **COST?**

25 A. Yes. As has been the common practice under Financial Accounting Standard
26 Board Policy FAS 71, the Commission can establish different accounting

1 proceedures for various items so long as the proceeedure establishes a set
2 methodolgy and time period for the recovery of the item.

3 **Q. WHAT ARE THE ACTUAL COSTS RELATED TO THE DEVELOPMENT**
4 **OF THE ORCOM BILLING SOFTWARE?**

5 A. Attached as Stephenson Dir. Exh. 3 is an analysis showing the actual costs of this
6 project and other relationships. Page 1 of the Exhibit shows that the total one-time
7 costs for this project is \$607,723. The amount included in the rate base for the
8 Tubac water district is \$5,617.

9 **Q. DID ARIZONA-AMERICAN PURCHASE ANY BILLING SYSTEM**
10 **ASSETS FROM CITIZENS AS PART OF THE ASSET PURCHASE?**

11 A. No. As page 2 of Stephenson Dir. Exh. 3 shows, the billing system used by
12 Citizens to bill its water and wastewater customers (the Banner System) was
13 retained by Citizens. Therefore, as I testified earlier, Arizona-American had to
14 have its own billing system set up and fully functional at the time the Citizens'
15 Acquisition closed.

16 **Q. WHAT IS THE EFFECT ON THE RATE BASES FOR THE ARIZONA**
17 **DISTRICTS INCLUDED IN THE COMPANY'S RATE FILING RELATED**
18 **TO THE DEVELOPMENT OF THE ORCOM BILLING SOFTWARE?**

19 A. As shown, the net book value of the Banner billing system at the time the Citizens'
20 Acquisition was completed was \$2,620,054. Of that amount \$982,488 was
21 allocated to the Citizens' water and wastewater systems in Arizona. The
22 difference between the development costs of the ORCOM system (\$607,723) and
23 the allocated net book value of the Banner system not purchased (\$982,488) is
24 \$374,766. Thus, there was a net benefit to the customers in Arizona through the
25 development of the ORCOM billing system as opposed to purchasing the Banner
26 billing system from Citizens at the net book value allocated to Arizona. The net

1 effect on the rate base of the Tubac water district is \$3,464.

2 **Q. WHY HAVE YOU MADE AN ADJUSTMENT OF \$906,531 FOR**
3 **CORPORATE COSTS TO TRANSFER VARIOUS ITEMS RELATED TO**
4 **THE CITIZENS' ACQUISITION TO THE ACQUISITION ADJUSTMENT?**

5 **A.** I have made this adjustment for the same reasons that I recommend the transfer of
6 the one-time start-up costs from expenses. These costs were incurred to complete
7 the purchase of the Citizens' Assets and to establish books and records for the
8 Citizens' Assets and systems. The costs are related to title reviews, legal
9 interpetations of contract clauses, legal representation to transfer existing contracts
10 and for accounting assistance. These costs were necessary to secure and protect
11 Arizona-American's legal rights to all the transferred assets and to obtain transfers
12 of all existing contracts and agreements. These are normal "organizational"
13 expenses to ensure full and proper title to transferred assets and to set up the books
14 and records in an appropriate manner.

15 **Q. CAN YOU PLEASE FURTHER DESCRIBE THE ITEMS WHICH YOU**
16 **ARE PROPOSING TO RECLASSIFY TO THE ACQUISITION**
17 **ADJUSTMENT?**

18 **A.** Certainly. The total amount of \$906,531 is comprised of charges from two
19 separate sources: charges incurred by AWW in connection with the purchase; and
20 charges from our accounting contractor in Arizona (Ronald L. Kozoman, CPA) to
21 develop satisfactory records for regulatory purposes. The total of the charges from
22 AWW is \$784,784 and the total of the charges from Mr. Kozoman is \$121,747.
23 The details of all of these charges is attached hereto as Stephenson Dir. Exh. 4.
24 This full amount is included in the Acquisition Adjustment.

25 **Q. PLEASE EXPLAIN THE JUSTIFICATION FOR REMOVING ALL OF**
26 **CITIZENS' MANAGEMENT FEES FROM THE TEST PERIOD**

1 **EXPENSES.**

2 A. I have removed all of Citizens' management fees from the test period expenses
3 because these expenses pertain to Citizens' management of the Citizens' Assets in
4 Arizona, not expenses that will be incurred under the ownership and management
5 of Arizona-American. These expenses must be removed and replaced by current
6 annualizations of Service Company charges to Arizona-American in order to
7 provide an accurate presentation of known and measureable expenses that are
8 occurring now and will occur on a going-forward basis in the future.

9 **Q. HOW DID YOU DETERMINE WHICH EXPENSES TO REMOVE**
10 **RELATED TO CITIZENS' MANAGEMENT AND WHICH EXPENSES**
11 **RELATED TO THE SERVICE COMPANY TO INCLUDE?**

12 A. The explanation of the procedure to determine what expenses were removed will
13 be discussed by Mr. Tom Bourassa in his direct testimony. I have annualized the
14 amount of expense to be included in the pro forma test period based on actual
15 recorded costs from April through July 2002. Attached as Stephenson Dir. Exh. 5
16 is a spreadsheet showing the recorded costs from January through the end of July. I
17 have not included the months of January through March in my annualization
18 because these months were either not full months due to the finalization of the
19 acquisition (January) or the months were not accurately reflect normal cost
20 allocations from the Service Company (February and March). Viewing Exhibit 5,
21 it is obvious that January and February have very low recorded expenses in
22 comparison to the other months. The month of March is more in line with future
23 months, but is still questionable due in part to the obvious omission of a credit for
24 the call center amortization (this amortization relates only to the Paradise Valley
25 system). Furthermore, March is a quarter-ending month, and as such expenses in
26 that month tend to contain more quarterly adjustments, thereby causing distortion

1 of the annualization without including the other months of the quarter.

2 **Q. WHAT IS THE AVERAGE MONTHLY CHARGE FOR THE SERVICE**
3 **COMPANY FOR THE MONTHS OF APRIL THROUGH JULY 2002?**

4 A. As shown on Stephenson Dir. Exh. 5, the average monthly amount of Service
5 Company charges for the period April through July 2002 is \$429,476. Annualizing
6 this amount yields a total of \$5,153,711 for 2002.

7 **Q. DID YOU SPREAD THE ANNUALIZED TOTAL TO EACH OF THE**
8 **SYSTEMS IN ARIZONA?**

9 A. Yes, I spread the annualized expense to each of the systems on a four-factor basis.
10 The four-factor analysis considers many factors all of which produce the benefits
11 Arizona-American receives from the Service Company. The four-factor
12 spreadsheet is attached hereto as Stephenson Dir. Exh. 6. The allocation to the
13 Tubac water district is \$38,653, based on the four-factor allocation methodology.

14 **Q. PLEASE EXPLAIN YOUR ESTIMATE OF RATE CASE COSTS**
15 **INCLUDED IN THE COMPANY'S RATE FILING.**

16 A. The estimate of rate case expense has been developed with estimates provided by
17 all outside consultants and costs estimated for in-house items. Attached as
18 Stephenson Dir. Exh. 7 is an estimate of the rate case costs necessary to prosecute
19 these applications. The total estimated costs of consultants and legal counsel is
20 \$608,000. This amount is comprised of \$275,000 for outside accounting and rate
21 assistance, \$51,000 for the outside rate of return consultant and \$282,000 for legal
22 counsel. The total estimate of in-house costs is \$98,000 and is comprised of
23 \$18,000 for employee expenses and \$80,000 for expenses related to mailings,
24 notices, printing and supplies. I have allocated the total estimated rate case costs to
25 each system based on adjusted test period revenues and have spread those totals
26 over a three-year recovery period. The total amount allocated to the Tubac water

1 district is \$5,039.

2 **Q. ARE THE ESTIMATED COSTS TO PROSECUTE THE RATE FILINGS**
3 **CONSISTENT WITH PRIOR COSTS INCURRED TO PROSECUTE RATE**
4 **APPLICATIONS IN ARIZONA?**

5 A. Yes, in fact the estimated cost to prosecute this case is lower on a per customer
6 basis than the amount the Commission has previously allowed for the Paradise
7 Valley water district in its past two rate cases. The average rate case cost per
8 customer in the last two Paradise Valley rate proceedings was approximately
9 \$13.25. In these applications we have estimated the rate case cost per customer to
10 be approximately \$6.50 per customer, or only \$2.17 per customer annually.

11 **Q. WHAT ARE THE ADJUSTED DIRECT CHARGES COMPRISED OF?**

12 A. The direct charges are comprised mostly of employee benefits, customer
13 accounting charges (bill forms, postage, inserts, collection agency fees, etc.),
14 insurance fees, dues and memberships, employee travel and directors and trustee
15 fees. Attached as Stephenson Dir. Exh. 8 is an itemization of the charges.

16 **Q. HOW DID YOU ESTIMATE THE ANNUAL COSTS FOR THESE ITEMS?**

17 A. I based the annualized cost for these items on the actual recorded costs for March
18 through July of 2002.

19 **Q. WHAT IS THE TOTAL OF THE ANNUALIZED DIRECT CHARGES AND**
20 **HOW WERE THEY ALLOCATED TO VARIOUS TEST PERIOD**
21 **EXPENSE CATAGORIES?**

22 A. The annual total for these direct expenses is \$3,161,915. The charges were related
23 to four different expense catagories: salary and wages (\$1,586,293); miscellaneous
24 expenses (\$23,058); general office expenses (\$1,293,829) and insurance fees
25 (\$258,736).

26 **Q. HOW WERE THESE DIRECT CHARGES ALLOCATED TO EACH OF**

1 **THE ARIZONA-AMERICAN SYSTEMS?**

2 A. These charges were allocated to each of the systems based on four different
3 factors. The system charges for salaries and wages were allocated to each system
4 based on expensed test period salaries; the allocation of miscellaneous expense
5 was spread to each system based on customer count and pro forma plant; the
6 allocation of general office expense was allocated to each system based on
7 customer count, pro forma plant and adjusted test period rate base; and the
8 allocation of insurance fees to each of the sysetms was based on adjusted test
9 period rate base.

10 **Q. WHY DID YOU USE THE MARCH THROUGH JULY TIME PERIOD?**

11 A. As stated earlier, I chose the time period that best represents the normalized
12 expenditures. I had to eliminate January and February from consideration due to
13 the fact that Arizona-American did not own the Citizens' Assets until January 15,
14 2002, and February 2002 was the first full month of operation by Arizona-
15 American and not all charges were recorded properly.

16 **Q. DID YOU REMOVE ALL OF THE RECORDED TEST PERIOD**
17 **EXPENSES RELATED TO THESE SYSTEM SPECIFIC ALLOCATIONS?**

18 A. Yes, all of the test period expenses for these items were removed from the test
19 period along with the Citizens' management fees.

20 **Q. WHAT WAS THE AMOUNT ALLOCATED TO EACH OF THE EXPENSE**
21 **CATAGORIES FOR THE TUBAC WATER DISTRICT?**

22 A. The allocations to each of the expense catagories for the Tubac water district is :
23 \$18,026, for salaries and wages; \$221 for miscellaneous; \$11,446, for general
24 office; and \$2,867 for insurance.

25 **V. CAPITAL STRUCTURE AND COST OF DEBT**

26 **Q. WHAT IS THE CAPITAL STRUCTURE THAT ARIZONA-AMERICAN**

1 **PROPOSES TO UTILIZE IN THESE APPLICATIONS?**

2 A. The Company proposes a capital structure comprised of 60 percent debt and 40
3 percent equity.

4 **Q. HOW WAS THIS CAPITAL STRUCTURE DETERMINED?**

5 A. It was determined based on the actual financing of the acquisition of the Citizens'
6 Assets by Arizona-American. At the very top of the first page of Stephenson Dir.
7 Exh. 1 is the entry to record the purchase of the Citizens' Assets by Arizona-
8 American. This entry shows Common Stock in the amount of \$110,888,158 (40
9 percent), Bonds – Inside of \$154,948,119 (56 percent) and Bonds – Outside of
10 \$10,635,000 (4 percent). These are the actual amounts for each of these
11 components as recorded on the books of Arizona-American at the time of purchase
12 of the Citizens' Assets. AWW strives to have its subsidiaries maintain the most
13 efficient capital structure. Typically, the most efficient capital structure for AWW
14 utility subsidiaries is comprised of approximately 60 percent debt. AWW has
15 maintained its high debt rating (A-) and secured very efficient rates for bonds and
16 notes by maintaining a 60 percent debt component in the capital structure. The
17 greater the leverage of the capital structure while still maintaining a high bond
18 rating, the lower the cost of capital to the Company and its customers.

19 **Q. PLEASE EXPLAIN THE DIFFERENCE BETWEEN "BONDS-INSIDE"**
20 **AND "BONDS-OUTSIDE."**

21 A. The "Bonds-Inside" comprise the debt financing provided by American Water
22 Works Capital Corp. ("AWCC") in the form of a short-term note. This is a five-
23 year unsecured note with an interest rate of 4.92%. The "Bonds-Outside" is debt
24 financing reflecting the assumption of Citizens' industrial development revenue
25 bonds I mentioned previously, which have an interest rate of 7.30%.

26

1 VI. ACQUISITION ADJUSTMENT

2 Q. EARLIER, YOU DISCUSSED THE ACQUISITION. HOW WILL
3 ARIZONA-AMERICAN ACCOUNT FOR THE DIFFERENCE BETWEEN
4 THE PURCHASE PRICE AND THE ACQUIRED ASSET BALANCE FOR
5 REGULATORY PURPOSES?

6 A. The difference will be recorded as an Acquisition Adjustment in accordance with
7 the NARUC Uniform System of Accounts.

8 Q. WHAT IS THE AMORTIZATION PERIOD THAT ARIZONA-AMERICAN
9 PROPOSES TO USE?

10 A. Forty years.

11 Q. WHAT METHOD OF AMORTIZATION IS ARIZONA-AMERICAN
12 PROPOSING TO USE?

13 A. Arizona-American proposes to follow a mortgage amortization method, which
14 incorporates the same amortization principle as home mortgages. Under this
15 method, Arizona-American would recover only a small portion of the Acquisition
16 Adjustment in the initial years and recover increasingly greater amounts in the later
17 years. The annual amortization increases each year. The proposed amortization of
18 the Acquisition Adjustment balance is attached hereto as Stephenson Dir. Exh. 9.
19 The amount of the amortization included in the cost of service for the Tubac water
20 district in these applications is \$1,100, based on amortization of the Acquisition
21 Adjustment in 2003, as shown on Exhibit 9.

22 Q. WHAT IS THE NORMAL METHOD OF RECOVERY FOR UTILITY
23 ASSETS?

24 A. The normal method, known as a straight-line method of recovery, involves equal
25 or level recovery in each year of the asset's life.

26 Q. WHY ARE YOU PROPOSING THE MORTGAGE METHOD RATHER

1 **THAN THE STRAIGHT-LINE METHOD?**

2 A. Although there are several reasons for this proposal, there is one significant
3 reason: the mortgage method provides a much better matching of the recovery of
4 the acquisition adjustment to the benefits the customers will receive as a result of
5 this transaction.

6 **Q. DOES USING THE MORTGAGE AMORTIZATION METHOD BETTER**
7 **ILLUSTRATE THE CUSTOMER BENEFITS OF THIS TRANSACTION?**

8 A. Yes. As stated previously, the savings generated from this transaction will grow as
9 time passes. Allocating the recovery of the Acquisition Adjustment on an
10 increasing basis over the recovery period, instead of leveling the recovery of the
11 Acquisition Adjustment as is normal under the straight-line method of recovery,
12 provides a superior opportunity for all current and future ratepayers to realize the
13 benefits of the transaction.

14 **Q. ARE THERE ANY OTHER FACTORS THAT SUPPORT YOUR**
15 **SELECTION OF THIS METHODOLOGY?**

16 A. Yes. The effects of inflation should also be considered. If a straight-line
17 amortization method is used, the highest net-present value amounts are charged
18 initially, and lower amounts are charged toward the end of the amortization. Given
19 the effects of inflation, the differential between initial and final charges are
20 substantial in terms of constant dollars. The mortgage-style amortization works
21 with the effects of inflation to create a more level, constant dollar charge.

22 **Q. WHAT SHOULD THE COMMISSION AUTHORIZE IN THIS**
23 **PROCEEDING WITH RESPECT TO AN ACQUISITION ADJUSTMENT?**

24 A. Arizona-American requests that the Commission authorize a 40-year amortization
25 period and use of a mortgage amortization method, with the recovery of the
26 acquisition adjustment as a component of the cost of service, as discussed

1 previously.

2 **VII. DISCUSSION OF THE REQUIREMENTS OF THE ACQUISITION**
3 **DECISION**

4 **Q. HAVE YOU ADDRESSED COMPLIANCE WITH ALL OF THE**
5 **COMMISSION'S DIRECTIVES IN THE ACQUISITION DECISION?**

6 A. No. I have only covered the requested treatment of the Acquisition Adjustment.
7 The Acquisition Decision also calls for the determination of the clear, quantifiable
8 and substantial net benefits for ratepayers resulting from the purchase of the
9 Citizens' Assets by Arizona-American; and the determination of the ratemaking
10 treatment of deferred taxes, excess deferred taxes and investment tax credits that
11 were on the books and records of Citizens at the time of the closing of the
12 purchase transaction, yet were not transferred to Arizona-American. It is my
13 recommendation to delay the demonstration of the clear, quantifiable and
14 substantial net benefits for ratepayers resulting from the purchase of the Citizens'
15 Assets by Arizona-American until a later date, after which time Arizona-American
16 will have greater operating experience and be better able to demonstrate the
17 tremendous net ratepayer benefits that result from this transaction. However, by
18 recommending this delay, Arizona-American does not waive its right to, at some
19 point in time in the future, request recovery of and on the Acquisition Adjustment,
20 if it so desires to do so. It is my recommendation is that the deferred taxes, excess
21 deferred taxes and the investment tax credit not be considered for any ratemaking
22 purpose.

23 **Q. WHAT IS THE BASIS FOR THIS RECOMMENDATION AS IT RELATES**
24 **TO THE DEFERRED TAXES, EXCESS DEFERRED TAXES AND THE**
25 **INVESTMENT TAX CREDIT?**

26 A. All of these items were established on the books and records of Citizens due to

1 timing differences between book and tax recognition of an allowance to record the
2 event causing the tax difference in the income stream. For deferred taxes, it is the
3 tax effect of the difference between depreciation methods of assets for book and
4 tax purposes. For tax purposes, many assets were once allowed to be depreciated
5 at an accelerated rate, meaning that the assets were depreciated at a higher early
6 period rate, and over a shorter time period, than for book purposes. For investment
7 tax credits, in the past the Internal Revenue Code allowed a percentage tax
8 deduction for the investment in various assets. The investment tax credit was
9 never considered for book purposes.

10 In short, these are taxes and credits that belong to Citizens, not Arizona-
11 American. Arizona-American purchased the water and wastewater assets of
12 Citizens in Arizona; it did not assume any of the liabilities, except for the one
13 series of industrial development revenue bonds. The deferred taxes and
14 investment tax credits will be reconciled from the books and records of Citizens
15 when Citizens files its 2002 tax return and applies these items against the gain or
16 loss realize upon the sale of the water and wastewater assets to Arizona-American.

17 **Q. WHAT WERE THE BALANCES OF THE DEFERRED TAXES AND**
18 **INVESTMENT TAX CREDITS ON THE BOOKS AND RECORDS OF**
19 **CITIZENS AT THE TIME OF CLOSING OF THE ASSET PURCHASE BY**
20 **AWW OF THE ARIZONA ASSETS?**

21 **A.** Stephenson Dir. Exh. 10 is a copy of the Arizona Property Detail supplied by
22 Citizens at the time of closing. This Exhibit shows that the balance for the
23 deferred taxes was \$4,674,819 and the balance of the investment tax credits was
24 \$1,910,600. There were no excess deferred taxes shown on the books and records
25 of Citizens for Arizona at the time of closing.

26 **Q. PLEASE EXPLAIN FURTHER WHY YOU BELIEVE THAT THE**

1 **DEFERRED TAXES ON THE BOOKS OF CITIZENS FOR ARIZONA AT**
2 **THE TIME OF CLOSING SHOULD NOT BE CONSIDERED FOR**
3 **RATEMAKING.**

4 A. Deferred taxes that were on the books and records of Citizens at the time of
5 closing are not an item that should be considered as a "carryover" item in an asset
6 purchase agreement. Deferred taxes result from items being treated differently for
7 tax and book purposes. These differences are primarily created by Citizens' ability
8 to delay actual tax payments due to accelerated asset value depreciation or
9 amortization for tax purposes over the straight-line depreciation or amortization
10 used for book and regulatory purposes. These tax-differences are recorded as
11 deferred taxes. These deferred taxes will be taken into consideration when
12 calculating a tax gain or loss as a result of the sale of the Citizens' Assets. Upon
13 the sale of such assets, these deferred taxes will be paid and the deferred tax
14 balances zeroed out.

15 When deferred taxes have been allowed as a component of cost of service
16 in utility ratemaking, their accumulated balance (ADIT) is typically deducted from
17 rate base as a source of non-investor capital. This is because deferred taxes are
18 collected in rates prior to the time they must be remitted to the respective taxing
19 authorities. In the interim, they represent a source of funds available to the utility
20 for plant investment or other corporate purposes. During that period it is entirely
21 appropriate to deduct the ADIT from rate base. When the tax liabilities underlying
22 previously deferred taxes are paid, however, the related ADIT balances are
23 eliminated and the rate base deductions are no longer available.

24 With respect to Citizens' ADIT existing at the time the sale of its water and
25 wastewater assets to AWW, the related income taxes will become due. At that
26 time, the ADIT's will be paid and there will be no balance available to deduct from

1 rate base. On-going compensation to customers is not warranted. When non-
2 investor funds have been satisfied they no longer exist, and no further rate base
3 deduction is appropriate. ADIT's may be viewed as a temporary loan to the utility
4 by the taxing authority. By deferring the date upon which taxes are ultimately
5 paid, a source of funds is created. Once the "loan" is repaid, the source of funds
6 ceases to exist. There is no entitlement inuring to the utility's customers, since
7 they pay taxes applicable to the utility service they receive.

8 **Q. WHAT IS THE EFFECT ON ARIZONA-AMERICAN IF THE**
9 **COMMISSION ELECTED TO USE CITIZENS' RECORDED DEFERRED**
10 **TAXES IN FUTURE RATEMAKING.**

11 **A.** The Internal Revenue Service has, on a number of occasions, declared that any
12 deferred income tax reserves or unauthorized income tax credits relating to assets
13 that have been sold, transferred, or removed from regulation may not continue to
14 be considered in the subsequent ratemaking determinations. To attempt to do
15 otherwise will result in the utility losing the ability to take accelerated depreciation
16 on its Federal income tax return.

17 **Q. PLEASE EXPLAIN FURTHER WHY YOU BELIEVE THE INVESTMENT**
18 **TAX CREDITS THAT WERE ON THE BOOKS AND RECORDS OF**
19 **CITIZENS AT THE TIME THE PURCHASE WAS COMPLETED BY**
20 **ARIZONA-AMERICAN SHOULD NOT BE CONSIDERED FOR**
21 **RATEMAKING.**

22 **A.** The reasons are exactly the same as for deferred taxes. The investment tax credits
23 will be considered in calculating Citizens' gain or loss as a result of the sale of the
24 assets, and therefore will be eliminated. The investment tax credits were a
25 "temporary" source of non-investor funds, once appropriately deducted from rate
26 base, but now that they have been "paid", they are no available as a rate base

1 deduction. This deduction no longer exists and as such cannot be used for
2 ratemaking.

3 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

4 **A.** Yes it does.
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STEPHENSON DIR. EXH. 1

N. JAMES

MAY 10 2001

ACTION

BEFORE THE ARIZONA CORPORATION COMMISSION
DOCKETED

APR 24 2001

DOCKETED BY

ad

WILLIAM A. MUNDELL
CHAIRMAN
JIM IRVIN
COMMISSIONER
MARC SPITZER
COMMISSIONER

IN THE MATTER OF THE JOINT
APPLICATION OF CITIZENS UTILITIES
COMPANY; AGUA FRIA WATER DIVISION
OF CITIZENS UTILITIES COMPANY;
MOHAVE WATER DIVISION OF CITIZENS
UTILITIES COMPANY; SUN CITY WATER
COMPANY; SUN CITY SEWER COMPANY;
SUN CITY WEST UTILITIES COMPANY;
CITIZENS WATER SERVICES COMPANY
OF ARIZONA; CITIZENS WATER
RESOURCES COMPANY OF ARIZONA;
HAVASU WATER COMPANY AND TUBAC
VALLEY WATER COMPANY, INC., FOR
APPROVAL OF THE TRANSFER OF THEIR
WATER AND WASTEWATER UTILITY
ASSETS AND THE TRANSFER OF THEIR
CERTIFICATES OF PUBLIC CONVENIENCE
AND NECESSITY TO ARIZONA-
AMERICAN WATER COMPANY AND FOR
CERTAIN RELATED APPROVALS.

DOCKET NOS. W-01032A-00-0192
W-01032B-00-0192
W-01032C-00-0192
S-02276A-00-0192
WS-02334A-00-0192
WS-03454A-00-0192
WS-03455A-00-0192
W-02013A-00-0192
W-01595A-00-0192
W-01303A-00-0192

DECISION NO. 63584

OPINION AND ORDER

DATE OF HEARING:

September 27, 2000

PLACE OF HEARING:

Phoenix, Arizona

PRESIDING ADMINISTRATIVE
LAW JUDGE:

Karen E. Nally¹

IN ATTENDANCE:

Chairman William A. Mundell and
Commissioner Jim Irvin

APPEARANCES:

Mr. Michael M. Grant, GALLAGHER &
KENNEDY. and Mr. Craig Marks, Associate
General Counsel, on behalf of Citizens
Communications Company;

¹ This Recommended Opinion and Order was prepared by Administrative Law Judge Marc E. Stern upon review of the testimony and exhibits admitted into evidence in the proceeding.

1 Mr. Norman D. James, FENNEMORE CRAIG, on
2 behalf of Arizona-American Water Company;

3 Mr. Daniel W. Pozefsky, Staff Attorney, on behalf
4 of Residential Utility Consumer Office;

5 Mr. Bill Meek on behalf of the Arizona Utility
6 Investors Association; and

7 Ms. Teena Wolfe, Staff Attorney, Legal Division,
8 on behalf of the Utilities Division of the Arizona
9 Corporation Commission.

10 BY THE COMMISSION:

11 On March 24, 2000, Citizens Utilities Company, now known as Citizens
12 Communications Company, together with its Agua Fria Water Division, Mohave Water
13 Division, Sun City Water Company, Sun City Sewer Company, Sun City West Utilities
14 Company, Citizens Water Services Company of Arizona, Citizens Water Resources Company of
15 Arizona, Havasu Water Company and Tubac Valley Water Company (collectively "Citizens"),
16 and Arizona-American Water Company ("Arizona-American") filed with the Arizona Corporation
17 Commission ("Commission") a Joint Application to Transfer Assets and Related Approvals
18 ("Application") of Citizens' water and wastewater utility assets in Arizona including Citizens'
19 Certificates of Convenience and Necessity ("Certificates") held by Citizens to Arizona-American.

20 On May 17, 2000 and on June 1, 2000, the Residential Utility Consumer Office
21 ("RUCO") and the Arizona Utility Investors Association ("AUIA") filed applications for leave to
22 intervene. Subsequently, intervention was granted to RUCO and to AUIA.²

23 On May 30, 2000, by Procedural Order, a hearing was scheduled on the above-captioned
24 matter for September 27, 2000. Citizens and Arizona-American caused public notice of the
25 Application and hearing thereon to be published in various newspapers throughout Arizona. In

26 ² On April 10, 2000, Mr. Marvin Lustiger filed an application to intervene in the above-captioned matter. However, by subsequent filing, Mr. Lustiger clarified that he was only interested in electric or telephone service in Mohave County, and therefore, Mr. Lustiger's request to intervene was deemed to have been withdrawn.

1 addition. Citizens notified all its customers of the Application by means of a written bill insert.

2 On September 14, 2000, a formal public comment session was held in Sun City.

3 On September 26, 2000, the Commission's Utilities Division ("Staff") filed a Settlement
4 Agreement ("Agreement") marked Exhibit A which is incorporated by reference and attached
5 hereto.

6 On September 27, 2000, a full public hearing took place at the offices of the Commission
7 in Phoenix, Arizona. Citizens, Arizona-American, RUCO, AUJA and Staff were present with
8 counsel. Following the presentation of evidence, Citizens and RUCO submitted written briefs on
9 the issue of whether Citizens should be required to pay a portion of the gain resulting from the
10 sale of its utility assets to Citizens' customers. The matter was then taken under advisement
11 pending submission of a recommended Opinion and Order to the Commission.

12 DISCUSSION

13 Parties to the Transaction

14 Citizens, through its various divisions and subsidiaries, provides water, wastewater,
15 electric, natural gas and telecommunications services to approximately 1.8 million customers in
16 22 states, including in excess of 100,000 customers in Arizona. Citizens' current business
17 strategy is to focus on the provision of telecommunications services and the expansion of those
18 operations through the acquisition of wire centers and access lines from other providers,
19 primarily in rural areas, as was the case in the recently approved transfer of rural wire centers by
20 Qwest Corporation to Citizens Utilities Rural Company, Inc.

21 In connection with this business strategy, Citizens intends to sell its water, wastewater,
22 electric, and natural gas utilities and to apply the proceeds to finance acquisitions and other
23 business activities in the telecommunications area. In April 2000, Citizens also announced the
24 sale of its Louisiana natural gas operations for \$375 million.

25 The Commission granted Arizona-American a Certificate of Convenience and Necessity
26 to provide water service to approximately 4,600 customers in portions of the Town of Paradise

1 Valley, the City of Scottsdale and certain unincorporated portions of Maricopa County. Arizona-
2 American is a wholly owned subsidiary of American Water Works Company, Inc. ("AWW")
3 which is the largest privately-owned water utility system in the United States, providing water,
4 wastewater and other water resource management services to approximately 3 million customers
5 in 23 states, and with a reported consolidated net plant of \$5.1 billion and operating revenues of
6 \$1.26 billion. AWW's December 31, 1999, balance sheet reflected a capital structure of 58.4
7 percent long-term debt, 2.3 percent preferred stock and 39.3 percent common equity.

8 In 1999, AWW's subsidiaries invested \$467 million in improving and upgrading their
9 facilities, and for the past several years, AWW has made similar expenditures averaging nearly
10 \$400 million per year. According to AWW witnesses, AWW's acquisition policy is motivated,
11 at least in part, by anticipated capital expenditures resulting from new regulatory requirements
12 and programs and the need to replace or upgrade aged infrastructure to maintain high quality
13 service. With the additional water and wastewater systems, AWW and its subsidiaries hope to
14 obtain economies of scale and to strengthen their financial capability by expanding their
15 customer base.

16 The Transaction

17 On October 15, 1999, Citizens, Arizona-American and AWW entered into an agreement
18 under which Arizona-American is to acquire the water and wastewater assets and the Certificates
19 held by Citizens in Arizona ("the Acquired Assets") for approximately \$231 million, subject to
20 adjustment at the time of closing. The purchase price will be increased based on utility plant
21 added by Citizens after June 30, 1999, and will be reduced based on plant retirements occurring
22 after such date. The Acquired Assets include all utility plant, property and interests relating to
23 Citizens' water and wastewater operations in Arizona, with certain exceptions, including assets
24 commonly used by Citizens in connection with other utility operations, cash and cash
25 equivalents, and assets related to benefit plans. Citizens will also retain certain liabilities,
26 including obligations for taxes payable, obligations relating to employee compensation and

1 benefits, and refunds of certain advances in aid of construction. Arizona-American will assume
2 and be liable for all contracts and permits assigned at closing, certain Industrial Development
3 Revenue Bonds ("IDRBs"), and unperformed obligations.

4 Arizona-American will finance the purchase of the Acquired Assets by a combination of
5 debt and equity. AWW has recently formed a new subsidiary, American Water Capital
6 Corporation ("AWCC"), that will provide loans and other financial services to AWW
7 subsidiaries. Initially, Arizona-American will borrow funds from AWCC on a short-term basis,
8 and receive additional funds in the form of common equity directly from AWW. Within 12
9 months, the short-term debt will be converted to long-term debt with a planned capital structure
10 which will contain 55 to 60 percent debt and 45 to 40 percent common equity, including
11 Arizona-American's existing debt and equity capital and the Citizens' IDRBs that will be
12 assumed.³

13 The Position of Staff and the Staff Settlement Agreement

14 Staff generally supported the application, and recommended that the transfer of the
15 Acquired Assets to Arizona-American be approved, subject to several conditions.

16 First, Staff recommended that the Commission defer any decision on the ratemaking
17 treatment of an acquisition adjustment, deferred taxes, excess deferred taxes, and investment tax
18 credits until a future rate proceeding.

19 Second, Staff recommended that the decision to allow recovery of an acquisition
20 adjustment be based on Arizona-American's ability to demonstrate that clear, quantifiable and
21 substantial net benefits have been realized by ratepayers, which would not have been realized
22 had the transaction not occurred.

23 Third, Staff recommended that Arizona-American should be ordered to file, 13 months
24

25 ³ Arizona-American has filed an application for authority to issue short-term and long-term debt in
26 connection with financing the purchase of the Acquired Assets, which is pending in Docket No. W-
01303A-00-0929.

1 after the closing of the transaction, a report comparing the number of complaints received by the
2 Commission prior to and after the transaction. The report should provide an explanation of any
3 significant changes in the number and importance of the complaints. Staff would then review
4 this report and, if necessary, make a recommendation to the Commission of any further action to
5 be taken.

6 Fourth, Staff recommended that an imputation of the benefits related to advances in aid
7 of construction ("AIAC") and contributions in aid of construction ("CIAC") received by
8 Arizona-American be made in subsequent rate proceedings for each former Citizens' system.
9 The purpose of the imputation would be to recognize those portions of the Acquired Assets that
10 were financed by AIAC and CIAC which Arizona-American will not be assuming. Staff also
11 recommended that imputed AIAC be amortized over a period of 10 years, while imputed CIAC
12 would be amortized below the line in the same manner as would have otherwise occurred.

13 Fifth, Staff recommended that Arizona-American be required to seek Commission
14 approval of any amendments to, or transfers of agreements relating to the purchase of water,
15 such as Citizens' Central Arizona Project ("CAP") water subcontracts.

16 Finally, Staff recommended that the Commission order Arizona-American to charge
17 ratepayers for services based on the rates, charges, and service tariffs in effect at the time of
18 closing in each Citizens service territory, until such time as Arizona-American files general rate
19 proceedings for each service territory.

20 In its rebuttal filing, Arizona-American indicated that it would stipulate to the conditions
21 recommended by Staff, including the deferral of a decision concerning the recognition of an
22 acquisition adjustment and the conditions under which an acquisition adjustment would be
23 recognized, and would adopt and utilize the rates and charges for service, and all other service
24 tariffs currently in effect in each of the affected Citizens service territories. However, Arizona-
25 American disagreed with imputing Citizens' AIAC and CIAC to Arizona-American.

26

0001920&O

DECISION NO. 63584

1 Subsequently, Staff and Arizona-American entered into the Agreement, which resolved
2 all areas of disagreement relating to the terms and conditions under which the Acquired Assets
3 would be transferred to Arizona-American.

4 Pursuant to the terms of the Agreement, Citizens' AIAC and CIAC will be imputed to
5 Arizona-American for ratemaking purposes. This adjustment will reduce rate base. The amount
6 of the AIAC and CIAC to be imputed to Arizona-American for ratemaking purposes will be
7 based on the actual balances shown on Citizens' regulatory books as of the date of the transfer of
8 the Acquired Assets, adjusted as follows: an amount equal to 5 percent of Citizens' AIAC
9 balance at the time of the transfer will be reclassified as CIAC and added to the CIAC balance,
10 and the same amount will be deducted from Citizens' AIAC balance. The adjusted amount of
11 AIAC will be amortized below the line (i.e., no impact on expenses) over a period of 6.5 years,
12 with the amortization period beginning on the day on which the transfer takes place. The
13 adjusted amount of CIAC will be amortized above the line (i.e., as a reduction to depreciation
14 expense that would otherwise be recoverable in rates) over a period of 10 years, with the
15 amortization period beginning on the day on which the transfer takes place. The imputation of
16 AIAC and CIAC to Arizona-American is solely for ratemaking purposes, and not for financial
17 accounting or any other purpose.

18 In addition to agreeing to the imputation of AIAC and CIAC, Arizona-American agreed
19 that the Commission may adopt Staff's remaining conditions concerning the sale and transfer of
20 the Acquired Assets. Staff and Arizona-American also agreed that Arizona-American's request
21 for an accounting order to establish the amortization method for any acquisition adjustment
22 resulting from the transaction should be deferred until a future rate case.

23 Based on these agreements by Arizona-American, Staff is recommending that the
24 Commission should approve the transfer of the Acquired Assets to Arizona-American and should
25 not impose any additional terms, conditions or requirements on Arizona-American.
26

1 During the hearing, Staff and Arizona-American voiced their support of the Agreement,
2 believing that its terms are reasonable and in the public interest. AUIA also expressed its
3 support for the Agreement. However, the remaining party to the proceeding, RUCO, objects to
4 the approval of the Agreement and to the transaction generally, as discussed below.

5 Position of RUCO

6 RUCO maintains the proposed transaction believing that it is not in the public interest
7 and should not be approved unless it is restructured. RUCO argued that the transaction could
8 possibly, in the future, impact on ratepayers. While RUCO did not disagree that consideration of
9 an acquisition adjustment should be deferred until a future ratecase, RUCO argued that the gain
10 resulting from the sale of the Acquired Assets received by Citizens, i.e., the difference between
11 the net book value of the Acquired Assets and the purchase price being paid by Arizona-
12 American, should be shared equally between Citizens stockholders and the ratepayers. RUCO
13 further argued that the Commission should adopt a set of criteria to determine what, if any,
14 acquisition adjustment should be allowed in a future rate proceeding. RUCO also suggested that
15 to make this transaction in the public interest, among other things, the transaction should be
16 contingent upon Arizona-American's Board of Director's approving a letter pledging to invest no
17 less than 15 percent of the purchase price in acquisitions and capital improvements of "resources
18 stressed" water and/or wastewater utilities in Arizona no later than 72 months after the date the
19 Commission authorizes the transaction.

20 Analysis of Disposition of Gain Issue

21 RUCO contended that fundamental principles of fairness support sharing the gain in this
22 case. RUCO maintained that ratepayers have shared in the risk associated with the operation of
23 the utility assets and that it necessarily follows that ratepayers should share in the gain realized
24 from the sale of those assets. According to RUCO, this risk sharing results from the accounting
25 treatment provided in the National Association of Regulatory Utility Commissioners
26 ("NARUC") Uniform System of Accounts when an asset is retired prematurely, i.e., before a

1 utility fully recovers its original cost via depreciation. RUCO also stated that prior Commission
2 decisions support gain sharing.

3 In response, Citizens argued that ratepayers have assumed no risk in connection with the
4 operation of Citizens' water and wastewater utility business. Investors have provided the
5 utility's capital and bear the financial risks associated with its operations. Therefore, the
6 investors should be entitled to receive any gain resulting from the transaction. As to prior
7 Commission decisions, Citizens cited three analogous cases involving a sale of an entire line of
8 utility business in which the Commission did not order gain sharing.⁴ Citizens also cited
9 Decision No. 60167 (April 17, 1997) in which a utility's natural gas business was sold at a loss.
10 In that case, the Commission did not order the customers to share in the loss.⁵

11 This proceeding is similar to the three cases cited earlier by Citizens since it is selling its
12 entire business and will have no further water and wastewater operations in Arizona. The
13 Commission has never required gain sharing under these circumstances. In the Contel of the
14 West matter, in which Citizens was authorized to acquire all of Contel's telephone properties in
15 Arizona, Staff urged that the gain resulting from the sale be shared equally with ratepayers.
16 However, the Commission rejected gain sharing in that case.

17 We also do not believe that ratepayers bear a substantial risk by virtue of receiving utility
18 service in this case. The particular accounting treatment for depreciable plant provided under the
19 Uniform System of Accounts does not shift risk to customers, but rather prescribes particular
20 accounting adjustments to properly reflect rate base before and after the retirement of a plant
21 item. The utility's owners, i.e., its shareholders, ultimately bear the risks associated with the
22 utility's business. While regulation may reduce those risks relative to most non-regulated
23

24

25 ⁴ Citizens/Southern Union, Decision No. 57647 (December 2, 1991); Contel/Citizens, Decision No. 58819,
(October 17, 1994); and GTE/Citizens, Decision No. 62648 (June 13, 2000).

26 ⁵ Ajo Improvement Company/Southwest Gas, Decision No. 60167 (April 17, 1997).

1 businesses, regulation does not shift that risk to ratepayers, who are entitled to receive utility
2 service at rates set by the Commission.

3 Accordingly, we do not find it appropriate under the circumstances in this case to require
4 Citizens to share with ratepayers any part of the gain it receives from the sale of the Acquired
5 Assets to Arizona-American. However, this will not preclude the Commission from protecting
6 the ratepayers in the future. In any claim for an acquisition adjustment in a future rate case, the
7 Commission can strictly scrutinize the foundation of the claim and determine what amount, if
8 any, should be approved.

9 Analysis of Remaining RUCO Recommendations

10 RUCO's other recommendations pertained to the structure of the transaction and
11 RUCO's concerns that this structure could lead to rate increases in the future. RUCO's concern
12 primarily relates to the fact that Arizona-American will not be assuming all of Citizens'
13 liabilities associated with AIAC and CIAC, which totaled approximately \$80.8 million and \$4.7
14 million, respectively, at December 31, 1999. According to RUCO, the structure of the
15 transaction will result in the elimination of AIAC and CIAC as reductions from rate base, which
16 will in turn result in an increase in rate base and, eventually, to rate increases.

17 We believe that the Agreement appropriately deals with this issue. Citizens' AIAC and
18 CIAC will be recognized for ratemaking purposes by Arizona-American, even though Arizona-
19 American is not assuming those liabilities. By virtue of this imputation, the impact of the
20 structure of the transaction will be ameliorated. Based on the evidence and the testimony, the
21 approach utilized in the Agreement is reasonable.

22 Further, the evidence indicates that the transaction between Citizens, Arizona-American
23 and AWW was the product of arms-length negotiations that occurred after Citizens had adopted
24 its current business strategy of focusing on telecommunications services and divesting itself of
25 its water and wastewater systems, as well as its electric and natural gas systems throughout the
26

1 country. This is not a transaction between affiliated companies. The payment by Arizona-
2 American will constitute an investment in the Acquired Assets.

3 RUCO also expressed concern regarding the impact of the transaction on Citizens'
4 accumulated deferred income taxes ("ADITs"), which totaled approximately \$5.2 million as of
5 December 31, 1999, and Citizens' investment tax credits ("ITCs"), which totaled approximately
6 \$2.2 million as of the same date. Under the Agreement, any decision on the treatment of ADITs
7 and ITCs will be deferred until Arizona-American seeks new rates in a future proceeding.
8 Staff's recommendation is appropriate under the circumstances herein.

9 Next, RUCO questioned the approach proposed by Arizona-American and Staff, as
10 adopted in the Agreement, for dealing with the possible future recognition of an acquisition
11 adjustment in rates. RUCO agreed with Arizona-American and Staff that it is appropriate to
12 defer consideration of any acquisition adjustment resulting from the transaction until a future rate
13 proceeding, in order to afford Arizona-American an opportunity to demonstrate that the
14 acquisition has provided a net benefit to ratepayers by virtue of improved operating efficiencies,
15 economies of scale and other synergies. However, RUCO's witnesses also contended that the
16 Commission should adopt a set formula that would be used in connection with any future
17 determination of the amount of the acquisition adjustment.

18 We have concerns about the adoption of a set, mechanical formula to quantify a future
19 acquisition adjustment. We believe that such a determination should be made at the time all the
20 facts and circumstances are known. Staff's recommendation concerning the basis on which the
21 Commission will allow the recovery of an acquisition adjustment is reasonable and in the public
22 interest. Arizona-American is cautioned that the Commission will require Arizona-American to
23 demonstrate that clear, quantifiable and substantial net benefits to ratepayers have resulted from
24 the acquisition of Citizens' systems that would not have been realized had the transaction not
25 occurred before the Commission will consider recovery of any acquisition adjustment in a future
26 rate proceeding.

1 RUCO was also critical of Arizona-American's failure to assume all of Citizens' IDRBS.
2 As stated, Arizona-American will assume certain IDRBS, which total approximately \$10.6
3 million. The IDRBS that will be assumed constitute low-cost capital. The average cost of the
4 IDRBS that will be assumed by Arizona-American was 3.55 percent per annum during 1999.
5 RUCO believes that there may be three additional Citizens bond issues, representing low-cost
6 capital, that will not be assumed in connection with the transaction.

7 Arizona-American, in its testimony, has acknowledged that other bonds have been issued
8 by Citizens. The evidence indicates, however, that in contrast to the IDRBS that will be
9 assumed, the other bonds would require unanimous consent from all bond holders in order to be
10 assumed, which would be administratively difficult, if not impossible, to accomplish within the
11 time frame of the transaction. The additional costs to Arizona-American to replace these low-
12 cost IDRBS with alternative forms of financing was not ascertained.

13 We find that it would not be feasible for Arizona-American to assume the remaining
14 bonds and it would not be reasonable to impute these bonds to Arizona-American's capital
15 structure. The remaining bonds will continue to be an obligation of Citizens and will continue to
16 be included in Citizens' capital structure in its ongoing telecommunications business.

17 Finally, RUCO recommends that authorization of the transaction be made contingent on
18 Arizona-American pledging to invest not less than 15 percent of the purchase price for the
19 Acquired Assets, or approximately \$35 million, in acquisitions and capital improvements of
20 "resource stressed" water and/or wastewater utilities in Arizona. These acquisitions and capital
21 improvements would have to be made within 72 months from the date on which the Commission
22 approves the transaction.

23 The Commission recognizes that there are small water and wastewater utilities in Arizona
24 that may need technical and financial assistance. Indeed, the Commission has provided such
25 assistance to small water and wastewater utilities through workshops and the development of
26 policies aimed at improving their financial viability. However, it is not reasonable to compel a

1 private utility to spend in excess of \$35 million to solve these problems, nor is it clear that the
2 Commission has the authority to do so.

3 Arizona-American has indicated its willingness to work with the Commission in
4 developing solutions to service problems being experienced by small, troubled utilities. By
5 virtue of acquiring Citizens' systems in Arizona, Arizona-American will be in closer proximity
6 to a number of these systems, and the Commission would expect Arizona-American, as
7 circumstances warrant, to seriously consider acquiring these systems or otherwise provide
8 technical or financial assistance. For these reasons, we do not believe it is appropriate to impose
9 such a mandate on Arizona-American.

10 * * * * *

11 Having considered the entire record herein and being fully advised in the premises, the
12 Commission finds, concludes, and orders that:

13 FINDINGS OF FACT

14 1. Pursuant to authority granted by the Commission, Citizens provides public water,
15 wastewater, electric, natural gas and telecommunications services in various parts of Arizona.

16 2. Pursuant to authority by the Commission, Arizona-American, a wholly owned
17 subsidiary of AWW, provides public water service to approximately 4,600 customers in the
18 Town of Paradise Valley, the City of Scottsdale and in certain unincorporated portions of
19 Maricopa County, Arizona. Arizona-American is presently classified as a Class B water utility.

20 3. On March 24, 2000, Citizens and Arizona-American filed an Application
21 requesting approval of the sale and transfer of Citizens' water and wastewater utility assets in
22 Arizona together with the transfer of Citizens' Certificates to Arizona-American.

23 4. RUCO and the AUIA were granted intervention in this Docket.

24 5. Public notice of the Application and hearing thereon was published in various
25 newspapers throughout Arizona within and in the vicinity of Citizens' and Arizona-American's
26 certificated service areas.

1 6. Customers of Citizens were also notified of the Application by means of a written
2 bill insert.

3 7. Citizens' current business strategy is to focus on the provision of
4 telecommunication services and to expand its telecommunications subsidiaries' operations
5 through the acquisition of wire centers and access lines from other providers, primarily in rural
6 areas.

7 8. In the furtherance of this business strategy, Citizens is selling its water,
8 wastewater, electric and natural gas utilities and applying the proceeds to finance acquisitions
9 and other business activities in the telecommunications industry.

10 9. AWW and its subsidiaries, including Arizona-American, are the largest privately-
11 owned water utility system in the United States, providing water, wastewater and other water
12 resource management services to approximately three million customers in 23 states.

13 10. AWW is financially sound, and has the experience, expertise and resources to
14 assume and perform Citizens' public service obligations.

15 11. On October 15, 1999, Citizens, Arizona-American and AWW entered into an
16 asset purchase agreement under which Arizona-American will acquire all of the water and
17 wastewater utility assets together with the requisite Certificates held by Citizens in Arizona.

18 12. Arizona-American will pay a purchase price of approximately \$231 million which
19 includes the assumption of approximately \$10.6 million of existing debt in the form of
20 outstanding IDRBS. The purchase price is subject to adjustment either higher or lower based on
21 plant additions and retirements occurring after June 30, 1999.

22 13. Arizona-American will finance the transaction through a combination of debt and
23 equity, resulting in Arizona-American having a capital structure of 55 to 60 percent debt and 45
24 to 40 percent common equity. This debt to equity ratio is comparable to the capital structures of
25 most large, publicly-traded water utilities.

26

1 14. Staff is recommending that the Application be approved for the sale and transfer
2 of Citizens' water and wastewater utility assets including the Certificates to Arizona-American
3 subject to the following conditions:

- 4 • that any decision on the ratemaking treatment of an acquisition adjustment,
5 deferred taxes, excess deferred taxes and investment tax credits be deferred until a
6 future rate proceeding;
- 7 • that if recovery of any acquisition adjustment is authorized in the future it should
8 be based on Arizona-American's ability to demonstrate that clear, quantifiable
9 and substantial net benefits have been realized by ratepayers in the affected areas,
10 which would not have been realized had the transaction not occurred;
- 11 • that Arizona-American file, 30 days after the first anniversary of the transaction, a
12 report which compares the number of complaints received by the Commission
13 under Citizens' ownership and under Arizona-American's ownership and provide
14 an explanation of any significant changes in the number and importance of the
15 complaints received. Staff should review the data and, if necessary, make a
16 recommendation to the Commission of any further action to be taken;
- 17 • that an imputation of the benefits related to AIAC and CIAC received by Arizona-
18 American should be made in subsequent rate proceedings for each former
19 Citizens system as recommended by Staff in its direct testimony;
- 20 • that Arizona-American shall be required to secure prior Commission approval of
21 any amendments to, or transfers of agreements relating to the purchase of water,
22 such as Citizens' CAP water subcontracts; and
- 23 • that Arizona-American shall charge ratepayers for services based on the rates,
24 charges, and service tariffs in effect at the time of closing in each Citizens service
25 territory, until such time as Arizona-American files general rate proceedings for
26 each service territory.

15 15. On September 26, 2000, Staff filed the Agreement that is marked Exhibit A. The
20 Agreement resolves all issues relating to the terms and conditions under which the Acquired
21 Assets may be sold and transferred to Arizona-American.

22 16. In the Agreement, Arizona-American acknowledged that it will follow Staff's
23 recommendations if they are adopted by the Commission.

24 17. While RUCO did not oppose the treatment of the acquisition adjustment in a
25 future rate proceeding, it neither joined in signing the Agreement nor suggested a workable
26

1 alternative approach to that agreed upon by Arizona-American and Staff in the Agreement in this
2 instance based on our prior treatment of similar transactions.

3 18. Arizona-American is a fit and proper entity to acquire Citizens' utility assets and
4 Certificates and to assume Citizens' public service obligations for the operation of the utility
5 systems in Arizona.

6 19. Staff and Arizona-American believe that the approval of the Agreement attached
7 hereto as Exhibit A is in the public interest.

8 20 Based on our review of the evidence, Staff's recommendations in Findings of Fact
9 No. 14 and the Agreement are reasonable and in the public interest. Therefore, the transfer of
10 Citizens' water and wastewater utility assets and Certificates to Arizona-American should be
11 approved.

12 CONCLUSIONS OF LAW

13 1. Citizens and Arizona-American are public service corporations within the
14 meaning of Article XV of the Arizona Constitution and A.R.S. §§ 40-281, 40-282 and 40-285.

15 2. The Commission has jurisdiction over Citizens and Arizona-American and over
16 the subject matter of the Application.

17 3. Citizens and Arizona-American provided notice of this proceeding in accordance
18 with the law.

19 4. There is a continuing need for public water and wastewater service in the
20 certificated service areas of Citizens.

21 5. Arizona-American is a fit and proper entity to receive the Certificates of Citizens.

22 6. The Application of Citizens and Arizona-American, the Agreement and the
23 conditions recommended by Staff in Findings of Fact No. 14 should be approved.
24
25
26

ORDER

1
2 IT IS THEREFORE ORDERED that the Joint Application for Approval to Transfer the
3 Assets and Certificates of Convenience and Necessity of Citizens Utilities Company, now known
4 as Citizens Communications Company, together with its Agua Fria Water Division, Mohave
5 Water Division, Sun City Water Company, Sun City Sewer Company, Sun City West Utilities
6 Company, Citizens Water Services Company of Arizona, Citizens Water Resources Company of
7 Arizona, Havasu Water Company and Tubac Valley Water Company, to Arizona-American
8 Water Company be. and is hereby, approved.

9 IT IS FURTHER ORDERED that Arizona-American Water Company shall comply with
10 the terms, conditions and requirements as set forth in the Staff Settlement Agreement, attached
11 hereto as Exhibit A. and with Staff's recommendations in Findings of Fact No. 14 hereinabove.

12 IT IS FURTHER ORDERED that Arizona-American Water Company shall file, within
13 30 days from the date on which the acquisition has been completed, with the Director of the
14 Commission's Utilities Division, appropriate documentation evidencing its acquisition of the
15 Citizens Utilities Company now known as Citizens Communications Company's Arizona water
16 and wastewater utility assets.

17 IT IS FURTHER ORDERED that Arizona-American Water Company shall notify its
18 customers of the effective date of the transfer of the utility assets and of its assumption of the
19 obligation to provide water and wastewater utility services at the existing rates by means of an
20 insert in its first regular monthly billing or by other appropriate means immediately following the
21 date it files the documentation with the Director of the Utilities Division.

22 IT IS FURTHER ORDERED that Arizona-American Water Company shall file, within
23 15 days of the date it files the documentation with the Director of the Utilities Division, a copy
24 of the notice it provides its customers.
25
26

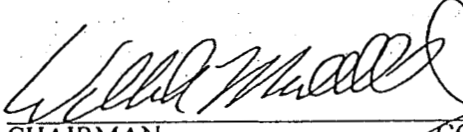
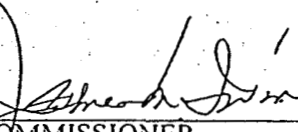
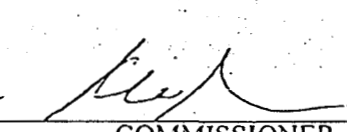
1 IT IS FURTHER ORDERED that Arizona-American Water Company shall continue to
2 charge the existing rates and charges of the transferred utility companies until further Order by
3 the Commission.

4 IT IS FURTHER ORDERED that Arizona-American Water Company shall continue to
5 file all periodic reports, and comply with all outstanding compliance matters previously required
6 of Citizens Utilities Company, now known as Citizens Communications Company relative to the
7 acquired water and wastewater operations.

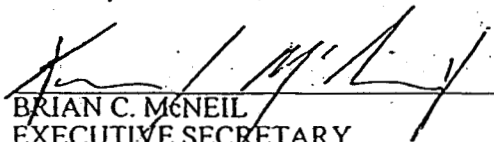
8 IT IS FURTHER ORDERED that Citizens Utilities Company shall maintain its books
9 and records for the transferred utility companies for a period of 5 years from the effective date of
10 this Decision.

11 IT IS FURTHER ORDERED that this Decision shall become effective immediately.

12 BY ORDER OF THE ARIZONA CORPORATION COMMISSION.

13 
14 CHAIRMAN
15  COMMISSIONER
16  COMMISSIONER

17 IN WITNESS WHEREOF, I, BRIAN C. McNEIL,
18 Executive Secretary of the Arizona Corporation
19 Commission, have hereunto set my hand and caused the
20 official seal of the Commission to be affixed at the Capitol,
21 in the City of Phoenix, this 24th day of
22 April, 2001

23 
24 BRIAN C. McNEIL
25 EXECUTIVE SECRETARY

26 DISSENT _____

1 SERVICE LIST FOR:

CITIZENS COMMUNICATIONS COMPANY
ET AL.

2 DOCKET NOS.:

W-01032A-00-0192; W-01032B-00-0192; W-
01032C-00-0192; S-02276A-00-0192; WS-
02334A-00-0192; WS-03454A-00-0192; WS-
03455A-00-0192; W-02013A-00-0192; W-01595A-
00-0192; and W-01303A-00-0192

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13 FENNEMORE CRAIG
14 3003 N. Central Avenue, Suite 2600
15 Phoenix, Arizona 85012-2913
16 Attorneys for Arizona-American Water Company

17 Walter W. Meek, President
18 Arizona Utility Investors Association
19 P. O. Box 34805
20 Phoenix, AZ 85067

21 Christopher C. Kempley, Chief Counsel
22 Legal Division
23 ARIZONA CORPORATION COMMISSION
24 1200 West Washington
25 Phoenix, AZ 85007

26 Deborah Scott, Director
Utilities Division
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Daniel W. Pozefsky
Staff Attorney
Residential Utility Consumer Office
Suite 1200
2828 North Central Avenue
Phoenix, AZ 85004

3099-0035/898296

000192D&O

DECISION NO. 63584

1 CARL J. KUNASEK
CHAIRMAN
2 JIM IRVIN
COMMISSIONER
3 WILLIAM A. MUNDELL
COMMISSIONER

4
5 BEFORE THE ARIZONA CORPORATION COMMISSION

6 IN THE MATTER OF THE JOINT
7 APPLICATION OF CITIZENS UTILITIES
8 COMPANY; AGUA FRIA WATER
9 DIVISION OF CITIZENS UTILITIES
10 COMPANY; MOHAVE WATER DIVISION
11 OF CITIZENS UTILITIES COMPANY; SUN
12 CITY WATER COMPANY; SUN CITY
13 SEWER COMPANY; SUN CITY WEST
14 UTILITIES COMPANY; CITIZENS WATER
15 SERVICES COMPANY OF ARIZONA;
16 CITIZENS WATER RESOURCES
17 COMPANY OF ARIZONA; HAVASU
18 WATER COMPANY AND TUBAC VALLEY
19 WATER COMPANY, INC., FOR
20 APPROVAL OF THE TRANSFER OF THEIR
21 WATER AND WASTEWATER UTILITY
22 ASSETS AND THE TRANSFER OF THEIR
23 CERTIFICATES OF PUBLIC CONVENIENCE
24 AND NECESSITY TO ARIZONA-
25 AMERICAN WATER COMPANY AND FOR
26 CERTAIN RELATED APPROVALS.

DOCKET NOS. W-01032A-00- 0192
W-01032B-00- 0192
W-01032C-00- 0192
S-02276A-00- 0192
WS-02334A-00-0192
WS-03454A-00-0192
WS-03455A-00-0192
W-02013A-00- 0192
W-01595A-00- 0192
W-01303A-00- 0192

SETTLEMENT AGREEMENT BETWEEN
ARIZONA CORPORATION
COMMISSION STAFF AND ARIZONA-
AMERICAN WATER COMPANY

On March 24, 2000, Citizens Utilities Company (now known as Citizens*
Communications Company), its Agua Fria Water Division, its Mohave Water
Division, Sun City Water Company, Sun City Sewer Company, Sun City West
Utilities Company, Citizens Water Services Company of Arizona, Citizens Water
Resources Company of Arizona, Havasu Water Company and Tubac Valley Water
Company (collectively, "Citizens") and Arizona-American Water Company
("Arizona-American") filed with the Arizona Corporation Commission
("Commission") a joint application for the approval of the sale and transfer of
Citizens water and wastewater utility plant, property and assets in Arizona,
including transfer of Citizens' certificates of convenience and necessity

FENNEMORE CRAIG
ATTORNEYS AT LAW
PHOENIX

PHX/NJAMES/1109126.1/73244.021

DECISION NO. 63584

1 ("Certificates"), to Arizona-American pursuant to A.R.S. § 40-285.

2 The Commission's Utilities Division Staff ("Staff") has investigated the
3 application and has recommended that the application be approved by the
4 Commission, subject, however, to certain conditions and requirements, which are
5 set forth in the Direct Testimony of Linda A. Jaress, filed in this docket on August
6 14, 2000, at pages 18-19 ("Staff Recommendations"). Arizona-American has
7 indicated that it is willing to accept the Staff Recommendations, with the exception
8 of the recommendation that Citizens' advances in aid of construction ("AIAC") and
9 contributions in aid of construction ("CIAC") be imputed to Arizona-American.

10 Representatives of Staff and Arizona-American have had discussions
11 concerning the matters in dispute with respect to the application and have reached
12 a settlement. The purpose of this Settlement Agreement is to memorialize the
13 agreement that has been made by and among Staff and Arizona-American, which
14 resolves all areas of disagreement relating to the terms and conditions under which
15 Citizens' Arizona water and wastewater assets and Citizens' Certificates may be
16 transferred to Arizona-American.

17 1. AIAC Imputation; Amortization. As of December 31, 1999, Citizens'
18 AIAC balance was \$80,818,669. Citizens' AIAC balance as of the date on which
19 Citizens' water and wastewater assets and Certificates are transferred to Arizona-
20 American and Arizona-American becomes responsible for the provision of water
21 and wastewater services will be imputed to Arizona-American. Such imputation
22 shall be solely for ratemaking purposes. The total amount of AIAC imputed will be
23 adjusted as more particularly provided below. The adjusted amount of AIAC will be
24 amortized below the line (i.e., no impact on expenses) over a period of 6.5 years,
25 with the amortization period beginning on the day on which the transfer takes
26 place.

1 2. CIAC Imputation; Amortization. As of December 31, 1999, Citizens'
2 CIAC balance was \$4,734,430. Citizens' CIAC balance as of the date on which
3 Citizens' water and wastewater assets and Certificates are transferred to Arizona-
4 American and Arizona-American become responsible for the provision of water and
5 wastewater services will also be imputed to Arizona-American. Such imputation
6 shall be solely for ratemaking purposes. The total amount of CIAC to be imputed
7 to Arizona-American will also be adjusted as provided below. The adjusted CIAC
8 balance imputed to Arizona-American will be amortized above the line (i.e., as a
9 reduction to depreciation expense) over a period of 10 years, with the amortization
10 period beginning on the day on which the transfer takes place.

11 3. Adjustment to Recorded AIAC and CIAC Balances. The amounts of
12 AIAC and CIAC to be imputed to Arizona-American for ratemaking purposes will be
13 based on the actual balances shown on Citizens' regulatory books as of the date of
14 the transfer, adjusted as follows: An amount equal to five percent (5%) of
15 Citizens' AIAC balance at the time of the transfer will be reclassified as CIAC and
16 added to the CIAC balance, and the same amount will be deducted from Citizens'
17 AIAC balance in computing the amounts to be imputed to Arizona-American for
18 ratemaking purposes hereunder.

19 4. Adoption of Remaining Staff Recommendations. Arizona-American
20 agrees that the Commission may adopt the remaining Staff Recommendations, as
21 set forth in the Direct Testimony of Linda A. Jaress.

22 5. Deferral of Determination of Amortization Method. The parties agree
23 that Arizona-American's request for an accounting order to establish the
24 amortization method for any acquisition adjustment resulting from the transaction
25 should be deferred until a future rate case.

26 6. Transfer in the Public Interest. Based on the foregoing agreements

1 and understandings, Staff agrees that Arizona-American is a fit and proper entity to
2 acquire the Certificates and that the Commission should authorize and approve the
3 transfer of Citizens' Arizona water and wastewater assets to Arizona-American on
4 the terms set forth herein. No additional terms, conditions or requirements are
5 necessary or appropriate.

6 7. Support and Defend. This Settlement Agreement will be introduced as
7 an exhibit during the hearing on the application, presently set for September 27,
8 2000. Arizona-American and Staff will jointly request that the Settlement
9 Agreement be received into evidence, and agree to support and defend this
10 Settlement Agreement and the transfer of Citizens' water and wastewater assets
11 and the Certificates to Arizona-American on the terms set forth herein as just,
12 reasonable and appropriate based on the particular circumstances presented in this
13 application.

14 8. Compromise; No Precedent. This Settlement Agreement represents a
15 compromise in the positions of the parties hereto. By entering into this Settlement
16 Agreement, neither Staff nor Arizona-American acknowledges the validity or
17 invalidity of any particular method, theory or principle of regulation, or agrees that
18 any method, theory or principle of regulation employed in reaching a settlement is
19 appropriate for resolving any issue in any other proceeding, including (without
20 limitation) any issues that are deferred to a subsequent rate proceeding. Except as
21 specifically agreed upon in this Settlement Agreement, nothing contained herein
22 will constitute a settled regulatory practice or other precedent.

23 9. Privileged and Confidential Negotiations. All negotiations and other
24 communications relating to this Settlement Agreement are privileged and
25 confidential, and no party is bound by any position asserted during the
26 negotiations, except to the extent expressly stated in this Settlement Agreement.

1 As such, evidence of statements that were made or other conduct occurring during
2 the course of the negotiation of this Settlement Agreement is not admissible in any
3 proceeding before the Commission or a court.

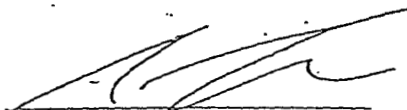
4 10. Complete Agreement. This Settlement Agreement represents the
5 complete agreement of the parties with respect to its subject matter. There are no
6 understandings or commitments other than those expressly set forth herein.

7 DATED this 26 day of September, 2000.

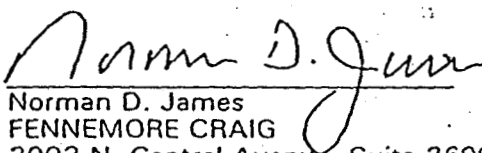
8 ARIZONA CORPORATION
9 COMMISSION STAFF

ARIZONA-AMERICAN WATER COMPANY

10 By:

11 
12 Steven M. Olea
13 Acting Director, Utilities Division
14 Arizona Corporation Commission
15 1200 West Washington Street
16 Phoenix, Arizona 85007

By:

17 
18 Norman D. James
19 FENNEMORE CRAIG
20 3003 N. Central Avenue, Suite 2600
21 Phoenix, Arizona 85012-2913
22 Attorneys for Arizona-American
23 Water Company

14 An original and 10 copies of the
15 foregoing was delivered this
16 ___ day of September, 2000, to:

17 Docket Control
18 Arizona Corporation Commission
19 1200 West Washington
20 Phoenix, AZ 85007

21 A copy of the foregoing
22 was delivered this ___ day of
23 September, 2000, to:

24 Karen E. Nally
25 Assistant Chief Administrative
26 Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, AZ 85007

1 A copy of the foregoing
2 was telecopied/delivered and mailed this _____
3 day of September, 2000, to:

4 Daniel W. Pozefsky
5 Staff Attorney
6 Residential Utility Consumer Office
7 2828 North Central Avenue
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10 (602) 285-0350
11 Walter W. Meek, President
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13 P. O. Box 34805
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15 (602) 254-4300

16 Craig A. Marks
17 Associate General Counsel
18 Citizens Communications Company
19 2901 N. Central, Suite 1660
20 Phoenix, AZ 85012
21 (602) 265-3415

22 By: _____
23
24
25
26

STEPHENSON DIR. EXH. 2

AMERICAN WATER WORKS - SHARED SERVICES CENTER
CITIZENS ACQUISITION
Final Acquisition Journal Entry - Arizona

F:\RATES\Arizona Citizens Rate Case\AZ Czn Entries Fina

1. RECORD UTILITY PLANT PURCHASED (Booked in Jan Based on Nov Info)

JE2301, reclass debt JE231

230105.104000	Utility Plant Purchased/Sold	276,471,277	
230105.201200	Common Stock		110,888,158
230105.221120	Bonds Inside		154,948,119
230105.221100	Bonds Outside		10,635,000

2. RECORD ACQUISITION - NET ASSETS

CZN record net assets	JE#		
230105.104000	Utility Plant Purchased/Sold		276,471,277
230105.134100	Petty Cash	3,371	
230105.146100.001	A/R Other Manual (Notes Rec)	500,000	R
230105.141000	Accounts Receivable	1,723,245	R
230105.141000	Accounts Receivable-unexplained difference		71,151
230105.144000	Unbilled Revenue	825,523	
230105.143000	Allowance for Doubtful Accounts		47,496 R
239902.241249.002	Collection for Others (agua fria)	27,730	
239902.241249.001	Collection for Others (agua fria)		27,730
239903.241249.002	Collection for Others (Sun City)	9,027	
239903.241249.001	Collection for Others (Sun City)		9,027
239901.241249.002	Collection for Others (Surprise)	382,751	
239901.241249.001	Collection for Others (Surprise)		382,751
239905.241249.002	Collection for Others (Sabrosa)	4,952	
239905.241249.001	Collection for Others (Sabrosa)		4,952
230105.146100.001	Misc A/R - Manual	581,849	R
230105.146100.001	Misc A/R - Manual	99,208	
230105.153000	Materials & Supplies-Stk E	30,557	
230105.165500	Prepaid Postage	896	R
230105.165500	Prepayments - Transition services	24,374	
230105.165500	Prepayments CAP Legal Services		2,500
230105.105110.1 CZN X	Capital Exp. Invoices paid by Citizens	1,057,874	Exb I
238305.146100.001	Sabrosa Water Well Project	9,672	
236206.675000.2135	Sun City Main Repairs	5,654	
236406.675000.2135	Sun City West Main Repairs	195	
230105.101099	Utility Plant	272,822,609	
230105.101099	Utility Plant CBSC Assets	19,974	
230105.105110.1 CZN X	CWIP	6,110,694	
230105.108105	Accumulated Depreciation		55,775,969
230105.108105	Accumulated Depreciation CBSC Assets		9,253
230105.183000	Preliminary Survey & Investigation	663,525	R
230105.238010	Customer Deposits		143,867 R
238905.186898.DD230001 s	Ground Water Withdraw Fee	418	
236205.186898.DD230001 s	Ground Water Withdraw Fee		97,658
236205.186898	DDA -Other	201,088	
236205.186898	DDA -Other	497,393	
236405.186898.DD230001 s	Ground Water Withdraw Fee		48,222
236405.186898	DDA -Other		96,961
236405.186898	DDA -Other	294,013	
236105.186898.DD230001 s	Ground Water Withdraw Fee		28,554
236105.186898	DDA -Other	22,458	
236105.186898	DDA -Other		44,971
236105.186898	DDA -Other	2,929,500	
230105.186898	DDN Other (regulatory assets)	1,392,615	R
230105.181110	Unamortized Debt Expense - outside	387,690	

230105.181110	Unamortized Debt Expense - outside	22,990	
230105.241998	Other Current Liability - analyzed		1,972,236.00
230105.236151	Accrued Property Taxes		886,624 sch
230105.252120	Advances for Const		23,364,564 sch
230105.262411	DCN - Advance Payments and Deposits Other		284,879 sch
230105.840000	Interest Exp Other	30,921	
230105.234300	A/P Misc. -Net Cash Payable		2,030,554
230105.114100	UPAA**	71,118,430	
		361,801,197	361,801,197

UPAA DETAIL

Initial UPAA	
Initial Cash Payment (line 5)	266,618,443
Less: Net Assets Purchased	195,489,291
Initial UPAA	71,129,152
Difference	10,722

CBSC Assets not on Citizen's AZ Balance sheet but should be according to the schedule 10,722 Part of IL workpapers

3. RECORD UTILITY PLANT DETAIL

GARY TO RECORD

230105.101099	Utility Plant (incl CBSC Assets)		272,842,583
230105.101000.xxxxxx		xxx	
230105.101000.xxxxxx		xxx	
230105.101000.xxxxxx		xxx	
230105.101000.xxxxxx		xxx	

4. WRITE-OFF INVENTORY TO EXPENSE (CREDITED EXP WHEN LOADED)

CZN W/O Inventory #4	JE#	
230105.575000.16	Misc Oper Exp AG	30,557
230105.153000	Material & Supplies	30,557

5. EXPENSE PREPAID POSTAGE

CZN - w/o prepaids#5	JE#	
230105.575000.16	Misc Expense	896
230105.165500	Prepayments	896

6. EXPENSE PREPAID MOTOR VEHICLE TAXES AND CAP Legal

CZN - w/o prepaids#6	JE#	
230105.575000.16	Misc Exp	21,874
230105.165500	Prepayments	2,500
230105.165500	Prepayments	24,374

7. TO WRITE OFF UNBILLED REV.

CZN - w/o unbilled #7	JE#	
236105.401120	Aqua Fria Res	120,069
236105.401220	Aqua Fria Comm	29,652
236105.401520	Aqua Fria OPA	24,609
236205.401120	Sun City Water - Res	211,176
236205.401220	Sun City Water - Comm	36,464
236405.401120	Sun City West - Res	107,910
236405.401220	Sun City West - Comm	22,191
237105.401120	Mohave - Res	115,155
237105.401220	Mohave - Comm	32,575
237105.401520	Mohave - OPA	4,601
237305.401120	Havasus Res	17,944
237305.401220	Havasus Comm	5,827
238305.401120	Distco Res	71,303

238305.401220	Distco Comm	9,753	
238905.401120	Tubac Res	13,783	
238905.401220	Tubac Comm	2,510	
230105.144000	Unbilled Revenue		825,523

8. CAPITAL INVOICES PAID BY CITIZENS NEED TASK ORDER NUMBERS

NO ENTRY NEEDED

Task Order	Anthem Valve Vaults Task Order 5	15,366	
Task Order	Anthem Water Treatment Plant Ph 3	51,093	
Task Order	Anthem Solids Handling Facility	344,109	
Task Order	Sun City West Reclaim Facility	70,913	
Task Order	Sun Village Well #5	18,900	
Task Order	Sun Village Water Plant Mods	11,129	
Task Order	Sun Village SCADA	2,240	
Task Order	Sun City Grand Water Plant #1	7,990	
Task Order	Anthem Project Mana Phase 4	76,444	
Task Order	Anthem Water Campus WTP 4MGD	310,975	
Task Order	Anthem Water Campus Tank #2	3,757	
Task Order	AT/AF Interconnect	1,147	
Task Order	Oakmont Dr. Water Replace	1,965	
Task Order	Anthem Remote Vault Float Valve	7,410	
Task Order	Anthem Valve Replacement	5,124	
Task Order	Sun City West Service Replacements	5,916	
Task Order	Sun City Sewer Flo Mtr SCADA RTU	11,266	
Task Order	Water test Agua Fria	88	
Task Order	Water Test Sun City	70	
Task Order	Water Test Anthem	640	
Task Order	Sun City/Sun City West Grdwtr Svgs	3,016	
Task Order	Sun City/Sun City Wst Well Study	25,415	
Task Order	Whitestone Water Reclaim Fac	5,846	
Task Order	Anthem Finished Water Res.#2	47,735	
Task Order	Sun City Grand SCADA	1,560	
Task Order	99th & Olive Flow Meter	1,318	
Task Order	Sun Village Booster Station	3,494	
Task Order	Surprise Main Replace	1,520	
Task Order	Anthem Phase 2	1,851	
	SUB - TOTAL	1,038,299	
Need Task Order	Sun Valley Water Treatment Plant	19,575	Not On D. Baka's sheets
	Was on the PA line of Exhibit I should be AZ		
	TOTAL	1,057,874	

STEPHENSON DIR. EXH. 3

Citizens Business Services Company (CBSC)
Net Book Value of Assets - Banner System & Non Banner Items
At January 15, 2002

Category	Description	Capitalized Cost	Accumulated Depreciation	Est. Net Book Value	Allocated by State	
					Illinois	Arizona
<u>Furniture & fixtures:</u>						
5	Office furniture	2,497	1,157	1,340	1,340	0
6	Work tables, files & storage cabinets	3,582	1,662	1,920	1,920	0
7	Copier	1,565	728	837	837	0
8	Facsimile machine	2,465	1,141	1,324	1,324	0
9	File server & software - Sun City, Az	19,974	9,253	10,721	0	10,721
9	File server & software - Harvey, LA	99,870	46,263	53,607	53,607	0
9	File server & software - Woodridge, IL	79,895	37,011	42,884	42,884	0
10	PCs and software	53,085	24,595	28,490	28,490	0
11	Misc.	2,465	1,141	1,324	1,324	0
12	PC credit services	7,056	3,271	3,785	3,785	0
	Total Furniture & Fixtures	272,454	126,222	146,232	135,511	10,721
<u>Data Center Implementation:</u>						
13	HAVC System (50%)	58,276	27,000	31,276	31,276	0
14	UPS unit	81,342	37,677	43,665	43,665	0
15	Generator	99,337	46,018	53,319	53,319	0
16	Fire suppression system	44,442	20,589	23,853	23,853	0
17	Raised flooring	10,212	4,726	5,486	5,486	0
18	Equipment racks / workstations	33,989	15,748	18,241	18,241	0
19	Telephone / data wiring	22,144	10,256	11,888	11,888	0
	Total Data Center Implementation	349,742	162,014	187,728	187,728	0
20	Computer hardware HP 9000 & HP-UX	705,391	326,768	378,623	378,623	0
<u>Mailing Center Implementation:</u>						
28	HVAC system (50%)	36,260	16,797	19,463	19,463	0
29	Ceiling tile	1,514	705	809	809	0
30	Carpet padding	404	184	220	220	0
31	Canape	3,082	1,425	1,657	1,657	0
	Total Mailing Center Implementation	41,260	19,111	22,149	22,149	0
32	Automated mailing system	316,328	146,541	169,787	169,787	0
33	Billing printer	202,150	93,647	108,503	108,503	0
34	Postage meter	7,046	3,263	3,783	3,783	0
	Total Allocated Assets	1,894,371	877,566	1,016,805	1,006,084	10,721
<u>Assets Expected to Retain</u>						
	Banner System	2,956,710	1,369,691	1,587,019		
	Other Unallocated Assets	138,601	64,194	74,407		
	Software License cost transferred from LGS 12/00	1,223,780	265,152	958,628		
	Total Retained Assets	4,319,091	1,699,037	2,620,054		
	Total CBSC Assets	6,213,462	2,576,603	3,636,859		

ARIZONA-AMERICAN WATER COMPANY
SPREAD OF ORCOM COSTS

Water/Wastewater	% of 4		Factor		Banner		Arizona		ORCOM	
	4 Factor	Percentage	Percentage	Factor						
Mohave Water	1.791		4.34%		\$113,730		\$113,730		\$70,348	
Havasupai Water	0.215		0.52%		\$13,653		\$13,653		\$8,445	
Tubac Water	0.143		0.35%		\$9,081		\$9,081		\$5,617	
Sun City Water	3.295		7.99%		\$209,236		\$209,236		\$129,424	
Sun City Sewer	2.579		6.25%		\$163,769		\$163,769		\$101,300	
Sun City West Water/Wstwr	4.011		9.72%		\$254,703		\$254,703		\$157,548	
Aqua Fria	1.862		4.51%		\$118,239		\$118,239		\$73,137	
California Water	7.450		18.06%		\$473,083				\$0	
Home Water	1.862		4.51%		\$118,239				\$0	
CU Water of Penn	1.361		3.30%		\$86,425				\$0	
Lake Heritage	0.143		0.35%		\$9,081				\$0	
Blue Mountain	1.289		3.12%		\$81,853				\$0	
Glen Alsace	1.003		2.43%		\$63,692				\$0	
CUC Illinois	10.316		25.00%		\$655,077				\$0	
Flowing Wells	0.143		0.35%		\$9,081				\$0	
Ohio Utilities	2.221		5.38%		\$141,036				\$0	
Citizens Water Resources Co. of AZ	0.931		2.26%		\$59,119		\$59,119		\$36,568	
Citizens Water Services Co. of AZ	0.645		1.56%		\$40,958		\$40,958		\$25,335	
				41.26			\$2,620,054	\$982,488	\$607,722	
				100.00%						
									\$607,722	

Total Banner Net Assets Retained

Total ORCOM Costs

STEPHENSON DIR. EXH. 4

Arizona-American Water Co.
Citizens Acquisition - Phase 3 Costs
As of September 30,2002

	<u>2000</u>	<u>2001</u>	<u>2002</u>		<u>Total</u>
Service Company Charges	165,778	235,692	217,655	\$	619,125
Intergration Services (Consultants)			157,932	\$	157,932
Miscellaneous (<i>data lines, office trailer rental</i>)		1,497	450	\$	1,947
Notices to Customers		375	5,407	\$	5,782
	<u>167,778</u>	<u>239,564</u>	<u>383,445</u>	<u>\$</u>	<u>784,784</u>

Date - 9/25/02
 Page - 1
 From Date/Per 01/01/00
 Thru Date/Per 12/31/00
 Ledger Type: AA
 Sub Ledger/Type
 Currency Code

09200P Account Ledger Print

Account 21050-760715 Merger Costs Phase 3

DT Document	Date	Explanation	Batch	Subledger	Debit	Credit	
JE	20608 02/29/00	Reclass 2/00 Service Co. Chrgs	14124		2,011.32		User ID BBEINLIC
JE	405 03/31/00	Service Company Charges	15043		27,296.79		User ID MPATACSI
JE	405 04/30/00	Service Company Charges	16469		35,842.17		User ID MPATACSI
JE	20866 04/30/00	Reclass Mar., 00 Serv Co Chrgs	16469		822.51		User ID MPATACSI
JE	405 05/31/00	Service Company Charges	18080		12,907.91		User ID ARIVERA
JE	405 06/30/00	Service Company Charges	20131		54,847.50		User ID MPATACSI
JE	405 07/31/00	Service Company Charges July 0	22002			4,038.25-	User ID BBEINLIC
JE	405 08/31/00	Service Company Charges	23366		12,287.88		User ID MPATACSI
JE	405 09/30/00	Service Company Charges	25338		6,022.32		User ID DBAKA
JE	405 10/31/00	Service Company Charges	27022		5,786.27		User ID DBAKA
JE	405 11/30/00	Service Company Charges	28379		3,944.81		User ID DBAKA
JE	405 12/31/00	Service Company Charges	30020		8,046.96		User ID DBAKA
JE	405 12/31/00	Service Company Charges					User ID DBAKA
					169,816.44	4,038.25-	

----- Account Balances -----
 Ledger Total 165,778.19
 Unposted 165,778.19
 YTD-to-Date 165,778.19
 Cumulative

09200P Account Ledger Print

Account 23050.760715 Merger Costs Phase 3

Date - 9/25/02
Page - 1
From Date/Per 01/01/01
Thru Date/Per 12/31/01
Ledger Type: AA
Sub Ledger/Ty: *
Currency Code

DT	Document	Date	Explanation	Batch	Subledger	Debit	Credit	
JE	405	01/31/01	Service Company Charges	32855		11,980.82		User ID DBAKA
JE	405	02/28/01	Service Company Charges	34637		8,400.76		User ID DBAKA
JE	405	03/31/01	Service Company Charges	36299		7,732.01		User ID DBAKA
JE	405	04/30/01	Service Company Charges	38086		8,353.84		User ID DBAKA
JE	405	05/31/01	Service Company Charges	40082		1,224.37		User ID DBAKA
JE	405	06/30/01	Service Company Charges	42149		609.09		User ID DBAKA
JE	405	07/31/01	Service Company Charges	44101		895.92		User ID DBAKA
JE	405	07/31/01	Service Company Charges	44101		3,535.69		User ID DBAKA
JE	405	07/31/01	Service Company Charges	44101			471.88	User ID DBAKA
JE	405	07/31/01	Service Company Charges	44101			1.18	User ID DBAKA
JE	405	08/31/01	Service Company Charges	46074		19,930.36		User ID DBAKA
JE	405	09/30/01	Service Company Charges	47791		29,575.23		User ID DBAKA
CC	46350	10/31/01	JAMES W CAMPBELL	47791		86.08		User ID DBAKA
JE	405	10/31/01	SERIOUS SIGNS	49657		48,506.95		User ID DBAKA
PV	5501	11/15/01	WOODENSHIP	50586		375.00		User ID DBAKA
PV	5563	11/28/01	BILLING CHG PSTCRD: SURPSE AZ	50917				Invoice 200233
JE	405	11/30/01	Service Company Charges	51279		90.36		User ID DBAKA
PV	5689	12/14/01	UNITED RENTALS (formerly Moude	52310		36,593.11		Invoice A682306
PV	5690	12/14/01	OFFICE TRAILER RENTAL	52310		426.63		User ID DBAKA
PV	5693	12/14/01	OWEST - POB 29060 (480..000M,	52310		225.86		Invoice 21818444-001
PV	5693	12/14/01	POTS LINES INSTALLED	52310		270.04		User ID DBAKA
PV	5739	12/26/01	OWEST - POB 29060 (480..000M,	52624		120.90		User ID DBAKA
JE	395	12/31/01	CITIZENS SERVICE: 11/28-12/27	53086				Invoice 6235727003564B
JE	405	12/31/01	Special Accounts Payable	53958		27,256.97		User ID DBAKA
JE	405	12/31/01	ATER - Citizens	54064		29,570.56		User ID DBAKA
JE	24545	12/31/01	RECLASS CITIZENS ORCOM CHARGES	54064		607,722.55		User ID DBAKA
PV	5778	12/31/01	UNITED RENTALS (formerly Moude	52935		276.63		User ID DBAKA

09200P Account Ledger Print

Account 23050.760715 Merger Costs Phase 3

DT Document Date Explanation

RENT: 16 FT OFFICE TRAILER Batch Date 01/03/02

Batch Subledger Debit Credit

Batch Subledger Debit Credit

Batch Subledger Debit Credit

Batch Subledger Debit Credit

Batch Subledger Debit Credit

Batch Subledger Debit Credit

Batch Subledger Debit Credit

Batch Subledger Debit Credit

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Batch Subledger Debit Credit

Batch Subledger Debit Credit

Batch Subledger Debit Credit

Date 9/25/02
Page 2
From Date/Per 01/01/01
Thru Date/Per 12/31/01
Ledger Type AA
Subledger AA
Currency Code P
User ID DBAKA
Invoice 21919444-002

845,758.71

845,758.71

845,758.71

845,758.71

845,758.71

845,758.71

Account Balances

Ledger Total

Unported

YTD Date

Cumulative

845,285.67

845,285.67

845,285.67

845,285.67

845,285.67

845,285.67

845,285.67

845,285.67

845,285.67

845,285.67

Date - 9/25/02
 Page - 1
 From Date/Per 01/01/02
 Thru Date/Per 12/31/02
 Ledger Type - AA
 Sub Ledger -
 Currency Code

09200P Account Ledger Print

Account 230105.760715 Merger Costs Phase 3

DT	Document	Date	Explanation	Batch	Subl/MO#	Debit	Credit
PV	40068645	02/28/02	J L A ADVERTISING (JULIE LOHNE CALIFORNIA AMERICAN WATER CO	619415	Batch Date 03/01/02	2,509.28	
PV	40068654	02/28/02	J L A ADVERTISING (JULIE LOHNE CALIFORNIA AMERICAN WATER CO	619415	Batch Date 03/01/02	2,897.51	
JE	2135	05/31/02	Reclass expenses	1494101		149,699.60	
JE	2135	05/31/02	Reclass expenses	1494101	Batch Date 06/10/02	8,231.91	
JE	2112	09/30/02	Reclass Citizens Phase 3	2169033	Batch Date 09/17/02	217,333.01	
						380,671.31	

---- Account Balances ----
 Ledger Total 380,671.31
 Unposted 380,671.31
 Year-to-Date 380,671.31
 Cumulative

User ID SCHAFFCE
 Invoice CAMM00602
 User ID SCHAFFCE
 Invoice CAMM00302
 User ID TUNANEW
 User ID TUNANEW
 User ID TUNANEW

Date - 9/25/02
 Page - 1
 From Date/Per 01/01/02
 Thru Date/Per 12/31/02
 Ledger Type, AA
 Sub Ledger/Ty
 Currency Code
 P
 User ID RUSSOTL
 User ID RUSSOTL

Account Ledger Print

09200P

210205.760715 Merger Costs Phase 3

DT Document	Date	Explanation	Batch	Subl/MO#	Debit	Credit
JE	66 01/31/02	record awws bill	478862		321.69	
JE	66 02/28/02	record awws bill	Batch Date 02/06/02			
			Batch Date 03/05/02			
					321.69	

Ledger Total
 Unposted
 Year-to-Date
 Cumulative

 321.69

 321.69

 321.69

09200P Account Ledger Print

Date - 9/25/02
 Page - 1
 From Date/Per 01/01/02
 Thru Date/Per 12/31/02
 Ledger Type - AA
 Sub Ledger/Ty -
 Currency Code

Account 236105.760715 Merger Costa Phase 3

DT Document	Date	Explanation	Batch	Subl/WOH	Debit	Credit
PV 40043671	01/25/02	Arizona Dept of Water Resource CONVEYANCE OF RECOVERY WELLS	379996	Batch Date 01/25/02	150.00	
PV 40043684	01/25/02	Arizona Dept of Water Resource CONVEYANCE OF RECOVERY WELLS	379996	Batch Date 01/25/02	150.00	
PV 40043686	01/25/02	Arizona Dept of Water Resource CONVEYANCE OF RECOVERY WELL	379996	Batch Date 01/25/02	150.00	
					450.00	

Ledger Total
 Unposted
 Year-to-Date
 Cumulative

----- Account Balances -----
 450.00
 450.00
 450.00

P User ID DIETZMOP
 Invoice DR2447
 P User ID DIETZMOP
 Invoice DR2446
 P User ID DIETZMOP
 Invoice DR2445

**Arizona / American
Rate Case Expense**

<u>Preparation of Rate Case</u>		<u>Kozoman CPA</u>		<u>Thomas Zep</u>		<u>Fennamore</u>		<u>Total</u>		<u>Kozoman & Fennamore</u>	
<u>Hourly Rate</u>		<u>Monthly</u>	<u>Charges</u>			<u>Craig</u>	<u>Expenses</u>	<u>Actual</u>	<u>Estimates</u>	<u>Bourassa</u>	<u>& Craig</u>
			(a)			\$ 290.00				<u>Hours</u>	<u>Estimated</u>
Dec. 2001	(1) These expenses	\$	3,181							23	
Jan-02	(1) are to be		9,544							68	
Feb.	(1) capitalized.		7,635							55	
March	(1) These costs were		8,104							58	
April	(1) incurred to enable		5,768							41	
May	(1) Citizens data to		8,075							58	
June	(1) usable for rate case		19,898							142	
July	Capitalized Costs	\$ 121,747	59,541							425	
August			81,366					81,366		581	
Estimated September 2002			23,800	\$ 25,000				130,166		170	
Review Rate Filing Schedules and Testimony, Prepare Application					\$	80,000		210,166			276
Reproduction of Direct, Rebuttal & Rejoinder						10,000		220,166			34
Replies to Data Requests			30,000			20,000		270,166		200	69
Review ACC Staff & Intervenor Direct Rate Case Schedules and Testimony								270,166			
Prepare Rebuttal Testimony & Schedules			15,000			10,000		295,166		100	34
Review ACC Staff and Intervenor's Surr.			35,000			30,000		360,166		233	103
Prepare Rejoinder Testimony & Schedules			12,000			10,000		382,166		80	34
Pre-Hearing Conference & Miscellaneous Activities			20,000			15,000		417,166		133	52
Preparation for Hearing						10,000		427,166			34
Hearing, estimated at six (6) days				11,250				438,416			
Briefs				15,000		80,000		613,416		533	276
Analysis of Proposed Order			80,000			15,000		634,416		40	52
Preparation of exceptions			6,000			5,000		639,416			17
Preparation for and attend Open Meeting						10,000		649,416			34
			2,400			5,000		656,816		16	17
			36,511			30,000		723,327		243	103
Totals			\$ 342,077	\$ 51,250	\$ 330,000	\$ -				2,331	1,034

\$ 715,000

Round Down to

STEPHENSON DIR. EXH. 5

Arizona American - Management Fees Allocations

Line No.			
1	Annual Management Fee	\$	5,153,711
2			
3			
4		4 Factor	
5	<u>Location</u>	<u>Formula</u>	<u>Management Fee</u>
6		<u>Factor</u>	<u>Allocation</u>
7	Mohave Water, Havasu Water	0.1157	\$ 596,284
8	Mohave Sewer	0.0070	36,076
9	Sun City Water	0.1797	926,122
10	Sun City Sewer	0.1014	522,586
11	Sun City West Water	0.1001	515,886
12	Sun City West WasteWater	0.1072	552,478
13	Agua Fria, CWS, CWR Water	0.2300	1,185,353
14	CWS, CWR Sewer	0.0558	287,577
15	Tubac Valley	0.0075	38,653
16			
17			
18	TOTAL CUSTOMER COUNT	0.9044	\$ 4,661,016
19			
20			
21			

Arizona American - Management Fees Allocations

Line No.			
1	Annual Management Fee	\$	5,153,711
2			
3			
4		4 Factor	
5	<u>Location</u>	<u>Formula</u>	<u>Management Fee</u>
6		<u>Factor</u>	<u>Allocation</u>
7	Mohave Water	0.1011	\$ 521,040
8	Havasu Water	0.0146	75,244
9	Mohave Sewer	0.0070	36,076
10	Sun City Water	0.1797	926,122
11	Sun City Sewer	0.1014	522,586
12	Sun City West Water	0.1001	515,886
13	Sun City West WasteWater	0.1072	552,478
14	Agua Fria	0.1384	713,274
15	CWS/CWR Water	0.0916	472,080
16			-
17	CWS/CWR Sewer	0.0558	287,577
18			-
19	Tubac Valley	0.0075	38,653
20			
21			
22	TOTAL CUSTOMER COUNT	0.9044	\$ 4,661,016
23			
24			
25			

STEPHENSON DIR. EXH. 6

ARIZONA-AMERICAN WATER COMPANY
FOUR FACTOR ALLOCATION

DISTRICT/CO.	PLANT IN SERVICE	GENERAL METERED CUSTOMERS	SALARIES & WAGES	DIRECT O&M EXPENSES (EXCLUDE PR)	4 Factor Allocation %
SUN CITY SEWER DISTRICT/CO.	12,612,288 5.1853%	21,144 18.4614%	170,492 2.8744%	2,110,347 14.0583%	10.14%
SUN CITY WEST WASTE WATER DISTRICT/CO.	24,836,561 10.2111%	14,889 13.0000%	656,756 11.0727%	1,291,160 8.6012%	10.72%
MOHAVE (SORENSEN) DISTRICT/CO.	1,742,120 0.7162%	565 0.4933%	66,444 1.1202%	71,876 0.4788%	0.70%
DISTCO/TREATCO SEWER DISTRICT/CO.	21,774,316 8.9521%	3,600 3.1433%	341,267 5.7537%	673,393 4.4859%	5.58%
SUN CITY WATER DISTRICT/CO.	28,533,245 11.7309%	22,068 19.2681%	1,248,678 21.0523%	2,973,822 19.8104%	17.97%
SUN CITY WEST WATER DISTRICT/CO.	24,724,945 10.1652%	15,303 13.3614%	494,526 8.3376%	1,226,276 8.1690%	10.01%
TUBAC VALLEY DISTRICT/CO.	1,450,789 0.5965%	488 0.4261%	84,319 1.4216%	85,010 0.5663%	0.75%
MOHAVE WATER DISTRICT/CO.	15,573,103 6.4026%	13,623 11.8946%	907,831 15.3057%	1,024,583 6.8254%	10.11%
HAVASU DISTRICT/CO.	1,447,094 0.5949%	1,232 1.0757%	184,457 3.1099%	157,357 1.0482%	1.46%
AGUA FRIA DISTRICT/CO.	49,451,561 20.3311%	13,589 11.8649%	688,562 11.6089%	1,731,272 11.5330%	13.84%
DISTCO/TREATCO WATER DISTRICT/CO.	39,161,570 16.1005%	3,353 2.9276%	626,309 10.5594%	1,059,889 7.0605%	9.16%
PARADISE VALLEY DISTRICT/CO.	21,923,699 9.0135%	4,677 4.0836%	461,666 7.7835%	2,606,438 17.3630%	9.56%
ARIZONA TOTAL	243,231,291	114,531	5,931,307	15,011,423	100.00%

STEPHENSON DIR. EXH. 7

ARIZONA-AMERICAN WATER COMPANY
2002 General Rate Case Application
Rate Case Expense

Estimated Rate Case Expense for Current Rate Case Application:

Consultants
(see detail)

\$608,000

Employee Cost per Day

Hotel	\$	105
Airfare	\$	50
Food	\$	30
Miscellaneous	\$	15
Cost/Day	\$	200

AWWS Co. Employees

	Cost/Day	Days	# Emps	Total \$
Filing	\$ 200	1	1	\$ 200
System Tour	\$ 200	3	3	\$ 1,800
Stipulation Meeting	\$ 200	1	2	\$ 400
Hearings	\$ 200	10	5	\$ 10,000
Commission Conference	\$ 200	2	2	\$ 800
Public Meetings (1)	\$ 200	4	2	\$ 1,600
Public Meetings (2)	\$ 200	4	4	\$ 3,200

Total

\$ 18,000

Mailings, Printings, Supplies & Miscellaneous

\$80,000

Total Estimated Rate Case Expense

\$706,000

Amortization Period (In Years)

3

Normalized Annual Rate Case Expense

\$235,333

Recorded Rate Case Expense Per General Ledger

Rate Case Expense Adjustment

\$235,333

**Arizona / American
Rate Case Expense**

Preparation of Rate Case		Kozoman CPA Bourassa CPA		Fennamore Craig		Thomas Zep		Expenses		Total Actual Expenses & Estimates		Kozoman & Bourassa Actual & Estimated Hours		Fennamore & Craig Actual & Estimated Hours	
Hourly Rate	Monthly Charges	Monthly Charges		Fennamore Craig		Thomas Zep		Expenses		Total Actual Expenses & Estimates		Kozoman & Bourassa Actual & Estimated Hours		Fennamore & Craig Actual & Estimated Hours	
(a)	(a)	(a)		\$ 290.00								Hours		Hours	
Dec. 2001	(1) These expenses	\$ 3,181										23			
Jan-02	(1) are to be	9,544										68			
Feb.	(1) capitalized.	7,635										55			
March	(1) These costs were	8,104										58			
April	(1) incurred to enable	5,768										41			
May	(1) Citizens data to	8,075										58			
June	(1) usable for rate case	19,898										142			
July	Capitalized Costs	\$ 121,747										425			
August		81,366								81,366		581			
Estimated September 2002	Review Rate Filing Schedules and Testimony, Prepare Application	23,800		\$ 25,000						130,166		170			
Reproduction of Direct, Rebuttal & Rejoinder								\$ 80,000		210,166				276	
Replies to Data Requests								10,000		220,166				34	
Review ACC Staff & Intervenor Direct Rate Case Schedules and Testimony		30,000						20,000		270,166		200		69	
Prepare Rebuttal Testimony & Schedules		15,000						10,000		295,166		100		34	
Review ACC Staff and Intervenor's Surr.		35,000						30,000		360,166		233		103	
Prepare Rejoinder Testimony & Schedules		12,000						10,000		382,166		80		34	
Pre-Hearing Conference & Miscellaneous Activities		20,000						15,000		417,166		133		52	
Preparation for Hearing								10,000		427,166		34			
Hearing, estimated at six (6) days						11,250				438,416					
Briefs		80,000				15,000		80,000		613,416		533		276	
Analysis of Proposed Order		6,000						15,000		634,416		40		52	
Preparation of exceptions								5,000		639,416				17	
Preparation for and attend Open Meeting								10,000		649,416				34	
		2,400						5,000		656,816		16		17	
		36,511						30,000		723,327		243		103	
Totals		\$ 342,077		\$ 51,250		\$ 330,000		\$ -				2,331		1,034	

STEPHENSON DIR. EXH. 8

part 68 Actual (no Svc Co Expenses included)

	January	February	March	April	Actual	YTD	Forecast Mar-July Avg other than May-July	Monthly Avg	Mar-July YE Forecast	Actual Est.
Arizona										
Directors Fees						1,250	2,500	500	5,000	5,000 CC
Bank Svc Charges CA						925	13,589	2,442	25,007	25,007 CC
Bill Inserts -CA		1,380	5,784	440			1,364	341	3,070	4,035 CC
Collection Agencies							145	73	506	870 CC
Bank Svc Chg AG		306					541	47	778	564 CC
Forms							1,758	1,423	14,228	17,074 CC
Required Notifications			1,295		365		5,819	19,191	192,006	230,287 CC
Bill Inserts AG		100	8,180			70	10,870	2,134	21,340	25,665 CC
Brochures and Handouts							834	209	1,877	2,552 CC
Community Relations			834				3,220	644	6,441	7,750 CC
Postage CA				76	1,786	660	27,910	27,461	274,561	320,623 CC
Incentive Plan	1,290			31	189	18,939	25,930	18,995	191,429	228,600 EE
Group Insurance	32,598	30,669	16,853	20,280		44,314	322,495	51,845	581,722	622,145 EE
PBOP	5,295	3,828	104,922	32,353		25,890	27,388	24,458	370,172	341,592 EE
Wrks Comp	880	484	(196)	3,749		(7,845)	(6,578)	(1,598)	(14,520)	(19,051) EE
Dues/Memberships Deduct		697	973	382		170	2,202	301	3,707	3,812 EE
Dues/Memberships NonDeduct		40	147	53		770	1,167	225	2,234	2,705 EE
Employee Exp	175		9,718	11,498		10,315	48,169	9,603	94,204	115,231 EE
Employee Exp Conf/Registration			1,067	770		4,744	10,249	2,050	20,497	24,595 EE
Meal/Travel	239		1,773	4,478		3,190	16,805	3,313	33,371	39,758 EE
Other Welfare						535	2,265	341	4,491	5,495 EE
Employee Awards						42	61	21	147	252 EE
Employee Physicals						79	814	154	1,352	1,842 EE
Tuition			270	205			5,738	12,298	2,460	24,595 EE
Training			1,620	2,430		5,738	9,224	2,068	20,692	24,816 EE
401K	287	5,732	5,898	8,674		5,377	37,070	6,208	60,132	74,501 EE
ESOP	2,045	7,491	7,522	10,724		8,450	47,769	7,647	94,002	117,593 EE
Trustee Fees		1,600	1,243	1,233		1,800	8,528	1,422	15,929	17,038 PFP
Credit Line Fees	101	1,003	1,094	369		834	3,863	694	7,161	8,347 PFP
General Liab Insurance, Property	2,509	2,509	3,189	2,509		3,283	22,241	3,445	35,484	41,335 RB
Security Svc CA						449	2,372	593	5,337	7,116 RB
Security Svc	15,516	44,104	52,184	90,298		32,047	278,177	52,532	540,837	630,384 RB
Insurance Other, Gen. Liability	2,311		1,911	14,511		14,411	69,597	16,117	163,151	237,401 RB
Co Dues/Memberships Deduct	190		2,500	2,020		8,931	1,348	13,672	14,718	14,718
Co Dues/Memberships NonDeduct			495	8,501		12,038	3,009	27,051	28,126	28,126
Co Dues/Memberships AWWA Deduct			30	108		284	74	862	1,460	1,847
Co Dues/Memberships AWWA NonDeduct			443	152		849	162	1,460	2,333	2,333
Charitable Contributions Deduct						875	200	67	533	533
Charitable Contributions NonDeduct						100	200	67	533	533
Property Taxes	23,403	23,403	23,403	24,553		174,471	1,217,107	174,471	2,036,462	2,036,462
TOTAL										3,161,915
										3,161,915

1,586,293 1,586,293
17,068 23,068
8,347 1,293,829
41,335 258,736
637,500
217,401

STEPHENSON DIR. EXH. 9

Acquisition Adjustment Analysis

CITIZENS									
BOY Balance	BOY	Amortization	EOY	Tax Dep	Del Tax	Acc Del Tax	AVERAGE	Revenue Requirement	Total Revenue Requirement
0	71,631,081								
1	71,631,081	\$141,500	71,489,581	477,5405	1807223	1807223	70660000	7555000	\$7,555,000
2	71,489,581	\$156,400	71,333,181	477,5405	1801412	3608635	66700000	7364000	\$7,364,000
3	71,333,181	\$172,800	71,160,381	477,5405	1795016	5403651	66740000	7175000	\$7,175,000
4	71,160,381	\$190,900	70,969,481	477,5405	1787957	7191683	64770000	6986000	\$6,986,000
5	70,969,481	\$211,000	70,758,481	477,5405	1780118	8971726	62760000	6798000	\$6,798,000
6	70,758,481	\$233,100	70,525,381	477,5405	1771499	10743225	60760000	6610000	\$6,610,000
7	70,525,381	\$257,600	70,267,781	477,5405	1761944	12505169	58740000	6423000	\$6,423,000
8	70,267,781	\$284,600	69,983,181	477,5405	1751414	14256533	56740000	6237000	\$6,237,000
9	69,983,181	\$314,400	69,668,781	477,5405	1739792	15996375	54700000	6053000	\$6,053,000
10	69,668,781	\$347,400	69,321,381	477,5405	1726922	17732397	52640000	5870000	\$5,870,000
11	69,321,381	\$383,900	68,937,481	477,5405	1712687	19433994	50550000	5687000	\$5,687,000
12	68,937,481	\$424,100	68,513,381	477,5405	1697009	21132993	48440000	5506000	\$5,506,000
13	68,513,381	\$468,600	68,047,781	477,5405	1679654	22812647	46310000	5327000	\$5,327,000
14	68,047,781	\$517,800	67,529,981	477,5405	1660466	24473113	44140000	5149000	\$5,149,000
15	67,529,981	\$572,100	66,957,881	477,5405	1639289	26112402	41950000	4973000	\$4,973,000
16	66,957,881	\$632,200	66,325,681	0	-246558	25853844	40650000	4897000	\$4,897,000
17	66,325,681	\$698,500	65,627,181	0	-272415	25593426	40240000	4820000	\$4,820,000
18	65,627,181	\$771,800	64,855,381	0	-301002	25292427	39800000	4947000	\$4,947,000
19	64,855,381	\$852,700	63,999,681	0	-332553	24959674	39300000	4976000	\$4,976,000
20	63,999,681	\$942,200	63,057,481	0	-367458	24592416	38750000	5008000	\$5,008,000
21	63,057,481	\$1,041,000	62,016,481	0	-405990	24186426	38150000	5043000	\$5,043,000
22	62,016,481	\$1,150,300	60,866,181	0	-448617	23737809	37480000	5082000	\$5,082,000
23	60,866,181	\$1,270,900	59,595,281	0	-495651	23242158	36740000	5125000	\$5,125,000
24	59,595,281	\$1,404,300	58,190,981	0	-547677	22694481	35920000	5173000	\$5,173,000
25	58,190,981	\$1,551,600	56,639,381	0	-605124	22089357	35020000	5226000	\$5,226,000
26	56,639,381	\$1,714,400	54,924,981	0	-66616	21420741	34030000	5285000	\$5,285,000
27	54,924,981	\$1,894,300	53,030,681	0	-738777	20681964	32930000	5349000	\$5,349,000
28	53,030,681	\$2,093,000	50,937,681	0	-816270	19866694	31710000	5420000	\$5,420,000
29	50,937,681	\$2,312,600	48,625,081	0	-901914	18963780	30370000	5498000	\$5,498,000
30	48,625,081	\$2,555,200	46,069,881	0	-996528	17967252	28880000	5585000	\$5,585,000
31	46,069,881	\$2,823,300	43,246,581	0	-1101087	16866165	27240000	5681000	\$5,681,000
32	43,246,581	\$3,119,500	40,127,081	0	-1216605	15649560	25430000	5787000	\$5,787,000
33	40,127,081	\$3,446,800	36,680,281	0	-134252	14305308	23430000	5905000	\$5,905,000
34	36,680,281	\$3,808,400	32,871,881	0	-1485276	12820032	21210000	6034000	\$6,034,000
35	32,871,881	\$4,207,900	28,663,981	0	-1641081	11178951	18770000	6177000	\$6,177,000
36	28,663,981	\$4,649,400	24,014,581	0	-1813266	9366585	16070000	6335000	\$6,335,000
37	24,014,581	\$5,137,200	18,877,381	0	-2003508	7362177	13080000	6509000	\$6,509,000
38	18,877,381	\$5,676,100	13,201,281	0	-2213679	5148498	9780000	6702000	\$6,702,000
39	13,201,281	\$6,271,700	6,929,581	0	-2445963	2702555	6140000	6916000	\$6,916,000
40	6,929,581	\$6,929,600	-19	0	-2702544	-9	2110000	7151000	\$7,151,000
			2164820740	71631075			1551900000	234445000	\$234,445,000

Cost of Debt	4.9200%	Tax Life	15	Premium Defined	276471277
Cost of Equity	11.5000%	Tax Rate	39.00%	Allocated Purchase Price	205246727
Debt Percent	60.0000%			Total Value of Assets	71224550
Equity Percent	40.0000%			Gross Premium	500000
Weighted Cost of Debt	2.9520%			Capitalized Expenses	906531
Weighted Cost of Equity	4.6000%			Corporate Costs	71631081
Tax Gross Up	1.639			Net Premium	
TOTAL REVENUE GROSS UP	10.4914%				

STEPHENSON DIR. EXH. 10

**Estimated Net Asset Adjustment
Arizona Water Property Detail
As of 11/01**

[illegible]

11.31.01 closing siml v1,
AZ Prop

KUTA

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7 **BEFORE THE ARIZONA CORPORATION COMMISSION**

8 IN THE MATTER OF THE
APPLICATION OF ARIZONA-
9 AMERICAN WATER COMPANY, AN
ARIZONA CORPORATION, FOR A
10 DETERMINATION OF THE
CURRENT FAIR VALUE OF ITS
11 UTILITY PLANT AND PROPERTY
AND FOR INCREASES IN ITS RATES
12 AND CHARGES BASED THEREON
FOR UTILITY SERVICE BY ITS
13 TUBAC WATER DISTRICT.

DOCKET NO. W-01303A-02-_____

14
15 **DIRECT TESTIMONY**
16 **OF**
17 **ROBERT J. KUTA**
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III. POST-ACQUISITION CHANGES BY ARIZONA-AMERICAN.....	4

1 I. **INTRODUCTION**

2 Q. **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Robert J. Kuta, and my business address is 19820 N. 7th Street, Suite
4 201, Phoenix, Arizona, 85024.

5 Q. **BY WHOM ARE YOU EMPLOYED?**

6 A. By Arizona-American Water Company ("Arizona-American" or "Company"). I
7 am the Manager. Previously, I held the position of Director with Citizens Water
8 Resources before Arizona-American acquired all of the water and wastewater
9 assets of Citizens Communications Company ("Citizens") earlier this year. I
10 started with Citizens in 1998.

11 Q. **WHAT ARE YOUR RESPONSIBILITIES AS MANAGER OF ARIZONA-
12 AMERICAN?**

13 A. I am responsible for managing all aspects of Arizona-American's day to day water
14 and wastewater operations including administration, production, field services,
15 customer service and water quality business units serving approximately 115,000
16 customers in Mohave, Maricopa and Santa Cruz Counties.

17 Q. **WHAT WERE YOUR RESPONSIBILITIES AS DIRECTOR WITH
18 CITIZENS?**

19 A. I was responsible for development of strategic planning and long-range goals,
20 performed tactical functions including budget preparation, resource allocation and
21 development, implementation and review of key operational activities for
22 nationwide operations serving a population of 700,000. I also provided oversight
23 and direction to internal and retained legal services in connection with the
24 resolution of material litigation matters. I was also responsible for coordination of
25 closing efforts for Arizona operations during acquisition by Arizona-American.
26

1 Q. WHAT WAS YOUR WORK HISTORY BEFORE JOINING CITIZENS
2 AND THEN ARIZONA-AMERICAN?

3 A. I served as a Water Operations Manager for Chaparral City Water
4 Company/Spring Creek Utilities Company, and was an engineer with Litchfield
5 Park Service Company. I also worked as a hydrogeologist with various
6 companies, and was a hydrologist with the Arizona Department of Environmental
7 Quality.

8 Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND.

9 A. I graduated from Central Michigan University in 1986 with a Bachelor of Science
10 Degree – Limnology Concentration. I also hold a Master of Business
11 Administration from the University of Phoenix, and hold a Certified Operator
12 licenses from the State of Arizona in Distribution, Collection and Water and
13 Wastewater Treatment. Finally, I have nearly completed Graduate Studies for a
14 Hydrology/Civil Engineering Degree at Arizona State University.

15 II. OVERVIEW OF TUBAC WATER DISTRICT

16 Q. IN YOUR CAPACITY AS MANAGER, IS IT FAIR TO SAY YOU ARE
17 FAMILIAR WITH ALL OF ARIZONA-AMERICAN'S WATER AND
18 WASTEWATER OPERATIONS IN ARIZONA?

19 A. Yes, and this goes to the principal purpose of my testimony in connection with the
20 Company's rate filing. In each of the five applications, I will provide a brief
21 overview of the applicable water and wastewater districts,¹ including location,
22 customer base, operations and other significant features. I will also provide
23 testimony about current staffing levels, Arizona-American's new offices; and
24 relevant water supply and wastewater treatment issues. In this application, I will

25 ¹ As explained in the Direct Testimony of David P. Stephenson, the terms "district" and
26 "system" are used in the general sense to denote tariffed areas. For purposes of the
Company's rate filing they are essentially synonymous.

1 address the rate application for the Tubac water district.

2 **Q. WAS THE TUBAC WATER DISTRICT PART OF THE CITIZENS'**
3 **ACQUISITION?**

4 A. Yes, along with several other water and wastewater systems located in growth
5 corridors, primarily in high growth Maricopa and Mohave Counties, although the
6 Tubac water district is located in Santa Cruz County. Overall, the assets Arizona-
7 American acquired from Citizens provide water (potable, non-potable, and
8 reclaimed), wastewater (sewer collection, treatment and recharge), and water and
9 wastewater operation and maintenance services.

10 As explained in the Direct Testimony of David P. Stephenson, the Company
11 is filing five applications seeking rate increases for several of the systems Arizona-
12 American recently acquired from Citizens. Specifically, the systems covered by
13 these five applications include the Sun City water and wastewater districts
14 (Application No. 1); Sun City West water and wastewater districts (Application
15 No. 2); the Mohave water district and the Havasu water district (Application No.
16 3); Agua Fria water district, Anthem water district and the Anthem/Agua Fria
17 wastewater district (Application No. 4); and the Tubac water district (Application
18 No. 5). For convenience, I will sometimes refer to the five applications
19 collectively as the Company's rate filing.

20 **Q. WOULD YOU PLEASE PROVIDE AN OVERVIEW OF THE TUBAC**
21 **WATER DISTRICT.**

22 A. Yes. The Tubac water district was formerly owned and operated by Tubac Valley
23 Water Company, Inc., a wholly-owned subsidiary of Citizens. It is a small water
24 system, with annual revenues from water sales under \$1,000,000 and, at present,
25 approximately 500 customers. As I said, it is located in Santa Cruz County,
26 approximately 30 miles north of the international border with Mexico, in between

1 the Santa Rita, Tumacacori, and San Cayetano mountains. Actually, Tubac is a
2 thriving artist and retirement center. Although, for that reason, as well as its
3 location and the surrounding land ownership, this system has limited growth
4 potential.

5 **Q. WHEN WAS SERVICE FIRST PROVIDED IN THE TUBAC WATER**
6 **DISTRICT?**

7 **A.** The Tubac water district was originally granted a certificate of public convenience
8 and necessity in Decision No. 31919 (Nov. 12, 1959). Its current rates and charges
9 for utility service were approved in Decision No. 60172 (May 7, 1997), based on a
10 test year ending March 31, 1995. At that time, the water system received an
11 increase in revenues of 14.8 percent.

12 **Q. PLEASE DESCRIBE THE WATER RESOURCES ASSOCIATED WITH**
13 **THE TUBAC WATER DISTRICT?**

14 **A.** All of the water utilized in the Tubac water district for its utility operations is
15 withdrawn from wells within its certificated area. There is concern that some of
16 these wells may be pumping sub-surface flow from the Santa Cruz River, which
17 generally flows in a northerly direction and through a portion of the water system's
18 certificated area. The Company has asserted claims to surface water in the
19 pending general adjudication of water rights in the Gila River System and source,
20 which is proceeding at a very slow pace. The water system is also located within
21 the Santa Cruz Active Management Area, established by the Arizona Department
22 of Water Resources.

23 **III. POST-ACQUISITION CHANGES BY ARIZONA-AMERICAN**

24 **Q. HAVE THERE BEEN OPERATIONAL, ADMINISTRATIVE OR OTHER**
25 **CHANGES SINCE ARIZONA-AMERICAN COMPLETED THE**
26 **ACQUISITION OF THE CITIZENS' ASSETS?**

1 A. Since January 2002, when the acquisition was completed, Arizona-American has
2 made a number of operational and administrative changes, including, most notably,
3 consolidation and relocation of offices in Maricopa and Mohave counties and
4 changes in staffing levels.

5 **Q. WOULD YOU PLEASE DESCRIBE THE CHANGES IN OFFICE**
6 **LOCATIONS FOR ARIZONA-AMERICAN STAFF THAT HAVE BEEN**
7 **IMPLEMENTED?**

8 A. Certainly. The Company recently purchased and remolded a building to house its
9 Mohave County Operations staff and leased a portion of a building to house its
10 Corporate Management, Water Quality, Engineering and Arizona based American
11 Water Works Service Company personnel located in Maricopa County. The vast
12 majority of Arizona-American's management, administrative and operations staff
13 are located in the Maricopa County and Mohave County office locations. Most of
14 the personnel responsible for operating the Tubac water district are housed in the
15 Maricopa County office locations.

16 **Q. DOES ARIZONA-AMERICAN HAVE AN ADMINISTRATIVE AND/OR**
17 **OPERATIONS LOCATION IN SANTA CRUZ COUNTY?**

18 A. Yes. A modular office trailer is located at 15 Burrell Street in Tubac. The small
19 office is a base of operation for the single associate assigned to the Tubac water
20 district.

21 **Q. WHAT NECESSITATED THE OFFICE CHANGES IN MARICOPA**
22 **COUNTY?**

23 A. Two factors required Arizona-American to lease space in Maricopa County. First,
24 Arizona-American's five-year lease in the City of Surprise City Hall Complex
25 currently occupied by its Engineering Staff has expired. The City needs space for
26 its own growing staff and will not renew the lease. Second, the Company owned

1 building in Sun City is overcrowded, cannot be expanded and cannot
2 accommodate planned growth in staffing.

3 **Q. WHAT WILL HAPPEN TO THE SUN CITY BUILDING?**

4 A. The Sun City building will continue to house the Operations staff serving western
5 Maricopa County. Additionally, Customer Service personnel will continue to be
6 housed at this location and it will continue to be used as a customer service and bill
7 payment location for our customers.

8 **Q. HOW HAVE THE COSTS ASSOCIATED WITH THESE OFFICES BEEN**
9 **TREATED IN THIS CASE?**

10 A. As more fully explained in the Direct Testimony of Thomas J. Bourassa, the
11 capital costs have been included as an adjustment to test year plant in service.
12 Likewise the rent for the leased space has been included as an adjustment to test
13 year expenses

14 **Q. YOU ALSO MENTIONED CHANGES IN STAFFING. PLEASE**
15 **DESCRIBE THOSE CHANGES.**

16 A. At the outset, it must be recognized that the current Arizona-American workforce
17 truly represents a new organization, not simply a combination of the former
18 Arizona-American and former Citizens' workforces. Arizona-American's current
19 staff consists of 131.5 authorized associates for year-end 2002. In aggregate, this
20 is an increase of 10 full-time positions over the three-year period since Arizona-
21 American agreed to purchase the Citizens assets in October of 1999.

22 **Q. WHY WERE THESE INCREASES IN AUTHORIZED POSITIONS**
23 **NECESSARY DURING THE INTERVENING THREE YEARS?**

24 A. There were a number of reasons for these increases in staffing but the primary
25 reasons are customer growth and regulatory needs.

26

1 Q. HOW HAVE GROWTH AND REGULATORY NEEDS WARRANTED AN
2 INCREASE IN STAFFING?

3 A. Since 1999, the total number of customers served by the districts acquired by
4 Arizona-American has increased by over 16,000 units or approximately 13%. As
5 for regulatory needs, environmental regulations related to water and wastewater
6 utility service continue to become more stringent as is evidenced by the recently
7 adopted arsenic standards. Staffing levels in our Water Quality and Water
8 Resource support groups must respond to these increased regulatory demands.

9 Q. CAN YOU IDENTIFY ANY OTHER FACTORS THAT HAVE AFFECTED
10 STAFFING?

11 A. Yes. To begin with, the assets acquired from Citizens were being operated with
12 insufficient staffing. I guess this should not be surprising. Citizens was not
13 earning its authorized rate of return and had made the decision some time ago to
14 sell all of its water and wastewater assets in Arizona. Hiring new personnel was
15 not a top priority. Moreover, in 1999 Citizens operated its Mohave County and
16 Maricopa County operations as completely separate entities and, of course,
17 Arizona-American's Paradise Valley operation was operated as a standalone entity.
18 Substantial reorganization was required to merge these three separate operations
19 into a single combined operation.

20 Q. HOW HAVE THESE TWO FACTORS IMPACTED REQUIRED
21 STAFFING LEVELS?

22 A. Citizens' understaffing of operations has caused the Company to increase the
23 number of associates required to serve our customers. We expect that trend to
24 continue for several years as Arizona-American continues its efforts to adequately
25 staff its operations. Combining the three formally separate operations into one has
26 had the opposite effect. Fortunately, the gained efficiency of the combined

1 operation has significantly offset hiring needs designed to reverse the impacts of
2 Citizens' historic understaffing.

3 **Q. HOW WERE THESE THREE OPERATIONS CENTERS COMBINED**
4 **INTO A SINGLE OPERATING ENTITY?**

5 A. The reorganization was a two-step process. First, prior to completing the Citizens'
6 Acquisition, Arizona-American evaluated the organizations and eliminated several
7 positions that would be unnecessary in a combined operation. Additionally, during
8 this period, new positions were authorized as needed to meet growth and
9 regulatory demands as well as customer needs. Finally, since the closing in
10 January 2002, we have continued to reorganize the workforce to maximize the
11 effectiveness and efficiency of the combined organization.

12 **Q. HOW EXTENSIVE WERE THESE POSITION ELIMINATIONS AND**
13 **OTHER REORGANIZATIONS?**

14 A. They were very extensive. In the two plus years before the acquisition was
15 completed, 15 full-time positions were targeted for elimination on or prior to the
16 close, 23 full-time and 1 part-time positions were authorized, and one part-time
17 associate was moved to full-time. This represents a net increase of 9 positions.
18 Since the closing, 6 additional full-time positions have been eliminated and 7 full-
19 time positions have been added for a net increase of 1 position. Thus, the net
20 increase over the total three-year period has been 10 positions.

21 **Q. DOES THE COMPANY'S RATE FILING TAKE INTO ACCOUNT THESE**
22 **STAFFING CHANGES AND OPERATIONAL REORGANIZATIONS?**

23 A. Yes. Appropriate adjustments for known and measurable changes to associate
24 salaries and related expenses have been made as more fully explained in the Direct
25 Testimony of Thomas J. Bourassa.

26

1 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

2 A. Yes it does.

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AKINE

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5
6

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10 DETERMINATION OF THE
CURRENT FAIR VALUE OF ITS
11 UTILITY PLANT AND PROPERTY
AND FOR INCREASES IN ITS
12 RATES AND CHARGES BASED
THEREON FOR UTILITY SERVICE
13 BY ITS TUBAC WATER DISTRICT.

DOCKET NO. W-01303A-02-_____

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15
16 **DIRECT TESTIMONY**
17 **OF**
18 **BLAINE AKINE**
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1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Blaine Akine. My business address is 12425 W. Bell Road, Surprise,
4 Arizona, 85374.

5 **Q. BY WHOM ARE YOU EMPLOYED?**

6 A. I am employed by Arizona-American Water Company ("Arizona-American" or
7 "Company").

8 **Q. PLEASE DESCRIBE YOUR CURRENT POSITION WITH ARIZONA-
9 AMERICAN.**

10 A. I serve as the Engineering Director for the State of Arizona. My current duties and
11 responsibilities include the oversight and management of all engineering design,
12 construction and developer activities for the Company's Arizona Operations.

13 **Q. WHAT WAS YOUR WORK HISTORY BEFORE JOINING ARIZONA-
14 AMERICAN?**

15 A. Prior to my employment with Arizona-American, I was employed by Citizens
16 Water Resources Division ("Citizens"). I have over 16 years of experience in the
17 engineering and utility business.

18 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

19 A. I received a Bachelor of Science degree in Civil Engineering from the University
20 of Hawaii in 1984, and a Masters of Business Administration degree from Arizona
21 State University in 1992.

22 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY
23 BODIES?**

24 A. Yes. I testified before the Arizona Corporation Commission ("Commission") on a
25 Citizens' request to expand its Certificate of Convenience and Necessity
26 ("CC&N") for one of its systems located in Maricopa, Arizona.

1 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS
2 PROCEEDING?

3 A. The purpose of my testimony is to provide a summary of certain plant additions
4 and other capital improvements that have or will be completed for the Tubac water
5 district during calendar year 2002. The Company proposes to include these post
6 test-year plant additions in its rate base for ratemaking purposes in this proceeding.
7 A description of the two types of plant additions (general maintenance and specific
8 projects), is provided in Akine Dir. Exh. 2, attached hereto. In that Exhibit, I
9 provide a general description of "blanket" type plant additions or capital
10 improvements that were needed to upgrade or replace aging infrastructure, increase
11 security and/or improve general water or wastewater operations in the service
12 territory.

13 II. DESCRIPTION OF COMPANY-FUNDED CONSTRUCTION AND
14 BUDGETING PROCESS

15 Q. WHAT PROCEDURE DOES THE COMPANY UTILIZE TO IDENTIFY A
16 COMPANY-FUNDED CONSTRUCTION PROJECT?

17 A. The Company goes through a yearly budgeting process where all proposed
18 construction projects are identified. The Company then extensively evaluates these
19 projects prior to ultimately selecting the capital Company-funded capital projects to
20 include in the capital plan.

21 Q. WHO DETERMINES HOW MUCH MONEY WILL BE SPENT ON
22 COMPANY-FUNDED PROJECTS?

23 A. The budgeting process for capital projects requires that detailed estimates be
24 developed for each approved project. The project dollars are then reviewed and
25 approved by management prior to inclusion in the capital plan.
26

1 **III. DESCRIPTION OF COMPANY-FUNDED PLANT ADDITIONS FOR**
2 **PROPOSED INCLUSIONS IN AND ADJUSTMENT TO RATE BASE**

3 **Q. WOULD YOU PLEASE SUMMARIZE THE COMPANY-FUNDED PLANT**
4 **ADDITIONS FOR THE DISTRICT THAT IS THE SUBJECT OF THIS**
5 **APPLICATION?**

6 **A.** The Company-funded plant additions for the Tubac water district that are the
7 subject of this application are all revenue neutral projects that will be completed by
8 the end of calendar year 2002. These capital plant additions will be utilized to
9 serve existing customers within the Tubac water district. Capital projects that
10 support new customer growth have not been included in the Company's rate filing.
11 The majority of these revenue neutral plant additions are for repair and replacement
12 of existing plant facilities. Again, a more detailed explanation of these system
13 improvements is provided in Akine Dir. Exh. 1 attached hereto.

14 **Q. WHAT AMOUNT OF COMPANY-FUNDED POST TEST YEAR**
15 **CONSTRUCTION DOES ARIZONA-AMERICAN PROPOSE TO**
16 **INCLUDE IN RATE BASE?**

17 **A.** The total company funded adjustment to rate base is \$44,500 dollars, as shown on
18 Akine Dir. Exh. 1, as well as the Company's Schedule B-2. These projects, which
19 were constructed during 2002, will be or have been completed and in service by no
20 later than December 31, 2002.

21 **Q. AND ALL THESE PLANT IMPROVEMENTS ARE REVENUE NEUTRAL?**

22 **A.** Yes. As mentioned above, these improvements are being made to serve existing
23 customers, and not new customers that were added after the end of the test year.
24 Capital projects that support new customer growth have not been included in this
25 application.
26

1 Q. WHY IS ARIZONA-AMERICAN PROPOSING A CUT-OFF DATE OF
2 DECEMBER 31, 2002 FOR POST TEST-YEAR PLANT ADDITIONS?

3 A. December 31, 2002, is a reasonable cut-off date based on the timing of the
4 application and the date on which these plant additions will become operable and
5 used to provide service to customers. The Commission's Utilities Division
6 ("Staff") will have ample time to inspect the plant and to verify that the plant is
7 "used and useful," and to audit the Company's construction costs before Staff's
8 direct filing will be due.

9 In addition, this cut-off date was selected in order to comply with the
10 guidelines for post test-year plant additions established in Arizona-American's
11 prior rate case. In Decision No. 61831 (July 20, 1999), the Commission ordered
12 the Company to "limit its adjustments to add post-test year plant to include only
13 plant that is used and useful and in service within 90 days of the date that the rate
14 application is deemed sufficient" in future rate cases. Decision No. 61831 at 3-4.
15 The December 31, 2002, cut-off date is well within the deadline for post test-year
16 plant additions set by the Commission.

17 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

18 A. Yes it does.
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AKINE DIR. EXH. 1

AKINE DIR. EXH. 1

[ARIZONA-AMERICAN 2002 REVENUE NEUTRAL PROJECTS]

TUBAC WATER DISTRICT

- A. Repair and replacement of existing facilities. These projects include such tasks as line replacement projects, and general plant repair and replacement. These are all "blanket" projects completed by the Operations Department as necessitated by the failure of equipment and other items of plant during the course of the year. Total cost - \$39,500.
- B. Arizona Administrative Office. This project consists of a tenant improvement and furnishing of a leased space to house management, water quality, engineering, development services and service company personnel. The project was necessitated by overcrowding in the Sun City office (which cannot be expanded due to zoning restrictions) and by the expiration of the lease for the Surprise office that houses our engineering and development services staff. Total allocation to District - \$5,000.

Total for Tubac Water District - \$44,500

TURNER

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6

7 **BEFORE THE ARIZONA CORPORATION COMMISSION**

8 IN THE MATTER OF THE
APPLICATION OF ARIZONA-
9 AMERICAN WATER COMPANY, AN
ARIZONA CORPORATION, FOR A
10 DETERMINATION OF THE
CURRENT FAIR VALUE OF ITS
11 UTILITY PLANT AND PROPERTY
AND FOR INCREASES IN ITS
12 RATES AND CHARGES BASED
THEREON FOR UTILITY SERVICE
13 BY ITS TUBAC WATER DISTRICT.

DOCKET NO. W-01303A-02-_____

14
15 **DIRECT TESTIMONY**
16 **OF**
17 **B. KENT TURNER, CPA**
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III. SUMMARY OF SERVICES AND BENEFITS PROVIDED TO ARIZONA-AMERICAN BY AMERICAN WATER WORKS SERVICE COMPANY	4

1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is B. Kent Turner. My business address is 303 H Street, Chula Vista, CA
4 91910.

5 **Q. BRIEFLY DESCRIBE YOUR POSITIONS WITH THE AMERICAN**
6 **WATER SYSTEM.**

7 A. I am Vice President-Finance and Chief Financial Officer of the Western Region of
8 American Water Works Service Company ("Service Company"). I am also Vice
9 President and Treasurer of Arizona-American Water Company ("Arizona-
10 American" or "Company"). I have been with the American Water System for three
11 years. Prior to assuming my present positions, I was Comptroller of the Western
12 Region. The Western Region consists of water and wastewater utilities located in
13 California, Arizona, Hawaii, New Mexico, and Texas, including Arizona-
14 American.

15 **Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

16 A. I graduated from Lincoln University of Missouri, Jefferson City, Missouri in 1975
17 with a Bachelor of Science Degree in Accounting. In addition, I hold a Master of
18 Science Degree in Taxation from Fontbonne College in St. Louis, Missouri. I
19 became a Certified Public Accountant in 1981 and am licensed to practice in the
20 State of Missouri.

21 **Q. WHAT WAS YOUR WORK HISTORY BEFORE JOINING THE**
22 **AMERICAN WATER SYSTEM?**

23 A. Prior to my employment with the American Water System I held numerous
24 positions with the Continental Water Company (CWC) group, which was acquired
25 by American Water Works Company in 1999. These positions included Senior
26 Vice President of Business Affairs of St. Louis County Water Company (SLCWC),

1 the largest CWC holding; Vice President of Rates and Regulations of SLCWC;
2 Manager of Corporate Accounting of SLCWC; Controller of Missouri Water
3 Company, and Accounting Manager of CWC, to name the most significant. In
4 total, I have 27 years of experience in the utility industry, including three years
5 with the Missouri Public Service Commission, holding the position of Accounting
6 Manager of the St. Louis Office at the time I left the Missouri Commission's
7 employ.

8 **Q. WHAT ARE YOUR PRIMARY RESPONSIBILITIES IN YOUR PRESENT**
9 **POSITIONS?**

10 **A.** I am responsible for the direction and oversight of all regulatory, finance,
11 accounting, and information systems activities within the Western Region as well
12 as many other administrative functions.

13 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY**
14 **AGENCIES?**

15 **A.** Yes. I have testified before the Missouri Public Service Commission on numerous
16 occasions in connection with general rate case proceedings and administrative
17 procedural matters, and I have appeared before a number of other regulatory and
18 municipal government agencies. Earlier this year, I testified before the Arizona
19 Corporation Commission ("the Commission") on a pending matter for Arizona-
20 American.

21 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THESE**
22 **PROCEEDINGS?**

23 **A.** The purpose of my testimony is to provide an overview of the American Water
24 System and its relationship to Arizona-American. I will also discuss the services
25 provided by Arizona-American affiliates, including the Service Company, and the
26 benefits that will be derived by Arizona-American and its customers from the

1 efficiencies gained through consolidation of such services.

2 **II. BACKGROUND ON ARIZONA-AMERICAN AND AMERICAN WATER**
3 **WORKS COMPANY**

4 **Q. PLEASE PROVIDE A BRIEF SUMMARY OF ARIZONA-AMERICAN.**

5 A. Arizona-American is an Arizona corporation that was incorporated in 1949. For
6 many years, Arizona-American has provided water utility service in portions of the
7 Town of Paradise Valley, the City of Scottsdale and certain unincorporated
8 portions of Maricopa County. At that time, Arizona-American was known as
9 Paradise Valley Water Company. The Company's name was changed to Arizona-
10 American Water Company in January 2000.

11 Arizona-American's common stock was purchased by American Water
12 Works Company ("AWW") in the late 1960s. Since that time, Arizona-American
13 has been a wholly-owned subsidiary of AWW and, as I indicated above, has been
14 part of the AWW Western Region. In January 2002, Arizona-American completed
15 the acquisition of the water and wastewater utility systems and assets of Citizens
16 Communications Company in Arizona.

17 **Q. PLEASE PROVIDE A BRIEF OVERVIEW OF AWW AND ITS BUSINESS**
18 **ACTIVITIES.**

19 A. AWW is a Delaware corporation, whose headquarters is located in Voorhees, New
20 Jersey. AWW, through its regulated and unregulated subsidiaries, has a business
21 presence in 28 states and three Canadian provinces. AWW has operating utility
22 subsidiaries that provide water and/or wastewater services to more than 12 million
23 people in 23 states, including Arizona-American. In addition, AWW has a number
24 of subsidiaries that are engaged in non-regulated business activities, including
25 American Water Services, whose business focuses on providing contract operating
26 and management services to municipal, industrial and military clients; American

1 Water Resources, which offers water and wastewater-related products and services;
2 the Service Company, which provides various professional services (e.g.,
3 accounting, administration, engineering, human resources, risk management and
4 water quality services) at cost, to AWW subsidiaries; and American Water Capital
5 Corp., which provides debt capital and treasury management services, at cost, to
6 AWW and its utility subsidiaries.

7 **III. SUMMARY OF SERVICES AND BENEFITS PROVIDED TO ARIZONA-**
8 **AMERICAN BY AMERICAN WATER WORKS SERVICE COMPANY**

9 **Q. PLEASE PROVIDE A BRIEF OVERVIEW OF THE BENEFITS DERIVED**
10 **BY ARIZONA-AMERICAN AND ITS CUSTOMERS FROM THE**
11 **AMERICAN WATER SYSTEM?**

12 **A.** There are numerous benefits from being part of a major corporation in the United
13 States today -- financial strength, purchasing power, and strategic direction to name
14 a few. Specifically, however, there are distinct advantages to being part of the
15 American Water System for a water and wastewater operation. As a result of the
16 many years and number of locations the American Water System has been in the
17 water wastewater business, a depth of knowledge as well as strong water resource
18 management is available 24 hours a day, seven days a week. It is inconceivable
19 that there is any situation in the water or wastewater business has not been seen,
20 understood and dealt with by members of the American Water System. From day-
21 to-day routine operation to complex treatment facility design and construction,
22 AWW, through its network of companies, has the talent and resources to deliver
23 the best possible product. It is through the sharing of these resources that AWW
24 can achieve excellence, at a lower cost, in all segments of its operations. It has
25 been a longtime practice of AWW to centralize and share this talent and expertise
26 among all of its operations to very economically provide the best possible

1 resources to every operation within the system. Today the services range from
2 highly technical project design teams, to extremely cost-effective capital
3 procurement, to efficient centralized corporate accounting, to name a few.

4 Q. **WHAT IS THE "SHARED SERVICES CENTER" AND WHAT BENEFITS**
5 **DOES IT PROVIDE TO ARIZONA-AMERICAN?**

6 A. Over the past 18 months AWW has been expanding the services it provides to all
7 of its operations through an initiative referred to as "Shared Services". The
8 "Shared Services" projects are nothing more than expansion of the philosophy held
9 by AWW for many years to provide the highest level of services while achieving
10 ultimate economies of scale that are available to large organizations, and the
11 Shared Services Center is one result of these activities. The Shared Services
12 Center is the operations center resulting from the recent consolidation of all
13 accounting, treasury, and many financial analysis functions. This consolidation
14 allows for a consistent accounting platform across the American Water System,
15 more efficient accounting processes, expanded analytical capabilities, and more
16 effective financial reporting. All this is accomplished with fewer human resources
17 and increased technical capabilities, providing an overall better product at less cost
18 to the ratepayer and the shareholder. It was designed from inception to capture
19 fully the economies of scale by providing a single service to multiple operations.
20 This project is still in its infancy and all AWW operations are currently in
21 transition. However, based upon performance to date, it appears the goals and
22 purpose are being accomplished effectively and costs will be reduced going
23 forward.

24 Q. **WHAT IS THE "CUSTOMER CALL CENTER" AND WHAT BENEFITS**
25 **DOES IT PROVIDE TO ARIZONA-AMERICAN?**

26 A. Running in parallel with the Shared Services Center project, another consolidated

1 services initiative was also conceived and implemented. This project involves the
2 consolidation of all customer billing, collection and reporting, and call handling
3 across the United States. Just two years ago, the American Water System utilized
4 multiple billing systems as well as multiple call centers across the country to
5 handle these functions. Many operations handled these functions with different
6 software programs and on different platforms. As a result, there was not a great
7 deal of commonality or consistency between the various customer services centers
8 across the United States. As is easily seen, the duplication and differences of
9 systems and human resources all performing essentially the same functions is not
10 particularly efficient, and lead to the evaluation of consolidation for more efficient
11 operations and cost benefits. As a result of this evaluation, a national Customer
12 Call Center was established in Alton, Illinois in 2002 for the purpose of
13 centralizing the call handling function. At about the same time, efforts began to
14 migrate the various customer billing systems to a common platform, ORCOM, at a
15 single location in Hershey, Pennsylvania to provide greater efficiency and
16 consistency within the billing process.

17 The transition to consolidated customer service and billing is a significant
18 undertaking and is still ongoing at the present time. Arizona-American, during the
19 first half of 2002, was cut over to this shared operation and has been undergoing
20 the normal conversion and transition issues that can be expected during such a
21 significant undertaking. We have made and will continue to make every effort to
22 minimize the effects and inconvenience to customers in our efforts to achieve the
23 goal of more efficient and effective customer service and billing.

24 Q. PLEASE DESCRIBE THE OTHER BENEFITS THE SERVICE COMPANY
25 PROVIDES TO ARIZONA-AMERICAN CUSTOMERS IN THE AREAS OF
26 WATER QUALITY TESTING, COMPREHENSIVE PLANNING AND

1 **RESEARCH AND DEVELOPMENT?**

2 A. The Service Company does and will continue to provide all of the traditional
3 services provided in the past to Arizona-American. The Shared Services Center
4 and the Customer Service Center are only the two most recent consolidated
5 services added. The Service Company continues to provide the highest level of
6 financial, water quality, and capital deployment planning and project management
7 as it has in the past in the most cost effective manner. In addition, AWW remains
8 committed to being the leader in research and development in water, wastewater,
9 and water resource management, all of which is available to Arizona-American, as
10 it is to all American System companies. All services provided add important value
11 to Arizona American while achieving consolidated economies of scale making
12 them extremely cost-effective. Specifically, the Arizona systems recently acquired
13 from Citizens Communications Company have already begun undergoing AWW's
14 comprehensive planning process, providing an effective roadmap for capital
15 deployment into the future. AWW has found this an extremely effective
16 management program, which allows regulators, customers, and shareholders a
17 comprehensive view into the future of the potential capital outlays. In addition, the
18 highest level of water quality testing, treasury functions, engineering functions, and
19 financial functions are all provided to Arizona-American at a shared reduced cost,
20 less than if the same service had to be procured independently.

21 Q. **DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

22 A. Yes it does.
23

24 PHX/1356647.1/73244.034
25
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BOURASSA

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7 **BEFORE THE ARIZONA CORPORATION COMMISSION**

8 IN THE MATTER OF THE
APPLICATION OF ARIZONA-
9 AMERICAN WATER COMPANY, AN DOCKET NO. W-01303A-02-_____
ARIZONA CORPORATION, FOR A
10 DETERMINATION OF THE
CURRENT FAIR VALUE OF ITS
11 UTILITY PLANT AND PROPERTY
AND FOR INCREASES IN ITS RATES
12 AND CHARGES BASED THEREON
FOR UTILITY SERVICE BY ITS
13 TUBAC WATER DISTRICT.

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17 **DIRECT TESTIMONY OF**
18 **THOMAS J. BOURASSA, CPA**
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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is Thomas J. Bourassa. My business address is 727 W. Maryland Ave.
4 #12, Phoenix, Arizona 85013.

5 **Q. WHAT IS YOUR PROFESSION AND BACKGROUND?**

6 A. I am a Certified Public Accountant and am self-employed, providing consulting
7 services to utility companies as well as general accounting services. I have a B.S.
8 in Chemistry/Accounting from Northern Arizona University (1980) and an M.B.A.
9 with an emphasis in Finance from the University of Phoenix (1991).

10 **Q. COULD YOU BRIEFLY SUMMARIZE YOUR PRIOR WORK AND**
11 **REGULATORY EXPERIENCE?**

12 A. Yes. I was employed by High-Tech Institute, Inc., and served as controller and
13 chief financial officer, prior to becoming a private consultant. Prior to working
14 for High-Tech Institute I worked as a division controller for the Apollo Group, Inc.
15 Before joining the Apollo Group I was employed at Kozoman and Kermode,
16 CPA's. In that position, I prepared compilations and other write-up work for water
17 and wastewater utilities, as well as tax returns.

18 In my private practice, I have prepared and/or assisted in the preparation of
19 several water and wastewater utility rate applications, including Vail Water
20 Company, E&T Water Company, Ponderosa Utility Company, Diablo Village
21 Water Company, New River Utility Company, Far West Water & Sewer, Sedona
22 Venture Water and Sewer, Bella Vista Water Company, Rio Verde Utilities, Gold
23 Canyon Sewer Company, Green Valley Water Company, and the Town of Oro
24 Valley.

25 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

26 A. I am testifying in this proceeding on behalf of Arizona-American Water Company

1 ("Arizona-American" or "the Company"). Arizona-American is seeking increases
2 in its rates and charges for utility service for the Tubac water district, which
3 provides water service in Santa Cruz County, Arizona.

4 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

5 A. I will testify in support of the Company's proposed rates for the Tubac water
6 district. My testimony will focus on the revenue requirement for this system. I am
7 sponsoring Schedules A through F, which are filed concurrently herewith in
8 support of this application. I was responsible for the preparation of these
9 schedules based on my investigation and review of the relevant books and records
10 for the Tubac water district. Ronald L. Kozoman will discuss issues relating to
11 rate design in his direct testimony and sponsor the Company's H schedules. In
12 addition, issues related to the cost of capital and proposed return on rate base are
13 addressed by David P. Stephenson and Dr. Thomas M. Zepp in their direct
14 testimonies, which testimonies I have relied on to prepare the Company's D
15 schedules.

16 **Q. HOW WILL YOUR TESTIMONY BE ORGANIZED?**

17 A. My direct testimony is presented in two parts. The first part addresses rate base
18 issues. The second part addresses income statement issues. I will also testify on
19 the other schedules required in the standard filing requirement set by the Arizona
20 Corporation Commission ("Commission").

21 **Q. WOULD YOU PLEASE SUMMARIZE THE COMPANY'S RATE CASE?**

22 A. Yes. As explained in the Direct Testimony of David P. Stephenson, the test year
23 proposed by Arizona-American is December 31, 2001, with pro forma adjustments
24 necessary to obtain a normal or realistic relationship between revenues, expenses
25 and rate base and to take into account known changes resulting from Arizona-
26 American's acquisition of Citizens' water and wastewater assets. A return of 7.75

1 percent on the Company's fair value rate base is requested, which, as Dr. Zepp
2 discusses in his testimony, is approximately equal to the current cost of medium-
3 grade investment bonds issued by utilities. The increase in revenues needed to
4 provide that return is approximately \$265,000. This represents an increase of
5 approximately 105% over the adjusted and annualized test year revenues.

6 **Q. WHY IS THE COMPANY FILING FOR RATE INCREASES AT THIS**
7 **TIME?**

8 **A.** Unfortunately, few of Citizens' systems received rate increases in the past 10
9 years, and several systems received rate decreases. The Tubac water district prior
10 rate case was based on a test year ended March 31, 1995, which was more than 7
11 years ago. The costs associated with operating the systems and the additional
12 utility plant added since the last rate case have exceeded the revenues gained from
13 customer growth and cost savings from more efficient operations.

14 **Q. BEFORE YOU BEGIN YOUR TESTIMONY ON THE RATE BASE AND**
15 **INCOME STATEMENT, WOULD YOU PLEASE DESCRIBE THE**
16 **SCHEDULES LABELED AS A, E, AND F?**

17 **A.** Yes. The A-1 Schedule is a summary of the fair value rate base, adjusted
18 operating income, current rate of return, required rate of return, operating income
19 deficiency, and the increase in gross revenue. Revenues at present and proposed
20 rates and customer classifications are also shown on this schedule.

21 The A-2 Schedule is a summary of results of operations for the test year,
22 prior years, and a projected year at present rates and proposed rates.

23 Schedule A-3 contains the capital structure for the test year and the two
24 prior years.

25 Schedule A-4 contains the plant construction, and plant in service for the
26 test year and prior years. The projected plant additions are also shown on this

1 schedule.

2 Schedule A-5 is the summary of changes in financial position (cash flow)
3 for the prior two years for the Tubac water district, the test year at present rates,
4 and a projected year at present and proposed rates for those systems.

5 The E Schedules are based on Citizens' actual operating results, as reported
6 by Citizens in the annual reports filed with the Commission. The E-1 Schedule
7 contains the Comparative Balance Sheet data the years 1999, 2000, and 2001.

8 Schedule E-2, page 1, contains the Income Statement for the years 1999,
9 2000, and 2001.

10 Schedule E-3 contains the Statements of Changes in financial position for
11 the test year and the two prior years for the Tubac water district.

12 Schedule E-4 provides the changes in stockholder's equity.

13 The E-5 Schedule contains the plant in service at the end of the test year,
14 and one year prior to the end of the test year.

15 The E-7 Schedule contains Operating Statistics for the year ended
16 December 31, 1999, 2000, and 2001 as to the number of customers, and revenue
17 per customer, and pumping power cost per 1,000 gallons of water sold.

18 Schedule E-8 contains the taxes charged to operations.

19 The accountant's notes to the financial statements and the financial
20 assumptions used in preparing the rate filing schedules are shown on schedule E-9
21 and F-4, respectively, in accordance with the Commission's standard filing
22 requirements. The Company does not cause audited financial statements to be
23 prepared, and none are available for the individual systems or for the Company as
24 a whole.

25 The F-1 Schedule contains the results of operations at the present rates
26 (actual and adjusted), and at proposed rates.

1 Schedule F-2 contains the summary of changes in financial position (cash
2 flow) for the prior two years for the Tubac water district, the test year at present
3 rates, and a projected year at present and proposed rates.

4 The F-3 Schedule has the projected construction requirements for 2002,
5 2003, and 2004.

6 Schedule F-4 contains the assumptions used in developing the adjustments
7 and projections contained in the rate filing.

8 **II. RATE BASE**

9 **Q. WOULD YOU PLEASE EXPLAIN THE RATE BASE SCHEDULES,**
10 **WHICH ARE LABELED AS THE B SCHEDULES?**

11 A. Yes. I will start with Schedule B-5, which is the working capital allowance. The
12 results produced by the "formula method" of computing the working capital
13 allowance are shown for informational purposes on Schedule B-5. However, the
14 Company is not requesting a working capital allowance in this case, as reflected on
15 Schedules B1, B2, and B3, in order to simplify this filing and to reduce issues in
16 the case.

17 **Q. PLEASE CONTINUE WITH YOUR DESCRIPTIONS OF THE RATE**
18 **BASE SCHEDULES?**

19 A. The B-4 contains reconstruction cost new less depreciation ("RCND") plant
20 information. The RCN plant costs were developed using the Handy-Whitman
21 Public Utility Semiannual Indexes Used in Deriving Estimates of the Value of
22 Construction Put in Place in Constant Dollars (1996=100). The indexes were
23 recomputed to 2001 dollars (2001=100). The RCN cost was determined by
24 multiplying the appropriate index (by month and year of acquisition) by the
25 original cost to derive the cost in current dollars. Accumulated depreciation,
26 advances in aid of construction ("AIAC") and contributions in aid of construction

1 ("CIAC") were trended using the ratio of the total reconstruction cost new
2 ("RCN") cost to total original cost plant.

3 **Q. HAVE YOU PREPARED A SCHEDULE SHOWING ADJUSTMENTS TO**
4 **THE RCND RATE BASE?**

5 A. Yes. Schedule B-3 shows those adjustments. These adjustments are, in summary:

6 Adjustment number 1 increases plant to the trended plant balance at the
7 closing of the purchase of the Tubac water district by Arizona-American, which
8 occurred on January 15, 2002 ("Closing").

9 Adjustment number 2 increases plant for revenue neutral construction work
10 in progress ("CWIP"), i.e., plant that will be completed and placed in service prior
11 to December 31, 2002. The basis for this adjustment is set forth in the Direct
12 Testimony of Blaine Akine.

13 Adjustment number 3 increases accumulated depreciation to the trended
14 balance at Closing.

15 Adjustment number 4 increases the AIAC and CIAC to trended transferred
16 balance. In Decision No. 63584 (April 24, 2001), which authorized the sale and
17 transfer of Citizens' water and wastewater assets in Arizona to Arizona-American,
18 the Commission ordered that Citizens' AIAC and CIAC balances be imputed to
19 Arizona-American and be given rate base treatment in the Company's rate filings
20 for specified periods of time. (Decision No. 63584 is discussed in the Direct
21 Testimony of David P. Stephenson, and a copy of the decision is attached to his
22 testimony as Stephenson Dir. Exh. 1.) This decision also required that 5 percent of
23 the AIAC balance imputed to Arizona-American be transferred to the CIAC
24 balance each year. Adjustment number 5 shows this transfer from AIAC and
25 CIAC at the trended amounts.

26 Adjustment number 6 is intentionally left blank.

1 Adjustment 7 increases rate base for the Orcom costs. These costs were
2 incurred in connection with setting up the Company's new billing system in
3 conjunction with the Citizens' acquisition. A previously recognized four-factor
4 formula was used to allocate the Orcom costs to each Arizona-American system.
5 The basis for these costs and their allocation are also explained by Mr. Stephenson
6 in his direct testimony.

7 Adjustment number 8 reduces plant and accumulated depreciation at the
8 trended values for a well, including land costs, that is held for future use.

9 **Q. HAVE YOU PREPARED A SCHEDULE SHOWING ADJUSTMENTS TO**
10 **THE ORIGINAL COST RATE BASE?**

11 A. Yes. Schedule B-2 shows adjustments to the original cost rate base. These
12 adjustments are, in summary:

13 Adjustment 1 increases plant to the plant balance at Closing.

14 Adjustment 2 increases plant for revenue neutral construction work in
15 progress ("CWIP"), i.e., plant that will be completed and placed in service prior by
16 December 31, 2002. As stated, these plant additions are discussed by Mr. Akine in
17 his direct testimony.

18 Adjustment 3 increases accumulated depreciation to the balance at Closing.

19 Adjustment 4 increases the AIAC and CIAC to the transferred balance.

20 As with the RCND rate base, mentioned above, 5 percent of the transferred
21 AIAC balance was transferred to the CIAC balance. Adjustment number 5 shows
22 this transfer.

23 Adjustment 6 is intentionally left blank.

24 Adjustment 7 increases rate base for the Acquisition Adjustment related to
25 the purchase of Citizens' water and wastewater assets by Arizona-American. Mr.
26 Stephenson explains the basis for the inclusion of the Acquisition Adjustment in

1 the original cost rate base in his direct testimony.

2 Adjustment 8 increases rate base for the Orcom costs. As I previously
3 explained, these costs were incurred in setting up the Company's new billing
4 system, and are discussed by Mr. Stephenson in his direct testimony.

5 Adjustment number 9 reduces plant and accumulated depreciation for a well
6 that is held for future use, including related land costs.

7 **Q. DO THE PLANT AND ACCUMULATED DEPRECIATION SHOWN ON**
8 **SCHEDULE B-2 AND B-3 REFLECT THE LAST COMMISSION RATE**
9 **ORDER?**

10 **A.** Yes. The plant shown on Schedule B-2 started with the Commission determined
11 plant from the last rate case. Plant additions and retirements since the last test year
12 have been added to and deducted from total plant shown on schedule B-2.

13 As I previously mentioned, the RCN plant costs as shown on schedule B-3
14 were prepared using Handy-Whitman indexes. Accumulated depreciation was
15 trended using the ratio of the total RCN cost to total original cost plant.

16 The accumulated depreciation balances reflect the depreciation expense
17 actually recorded for the systems (with certain adjustments as noted). The annual
18 depreciation expense for the Tubac water district was prepared using the
19 depreciation rates as ordered in the last Commission decision.

20 **Q. HOW WAS THE PROPOSED "FAIR VALUE" RATE BASE SHOWN ON**
21 **A-1 DETERMINED?**

22 **A.** The fair value rate base ("FVRB") shown on Schedule A-1 is based on the RCND
23 rate base, as adjusted. The RCND rate base should be used as the FVRB because
24 it most closely approximates the "fair value" of the Company's utility plant and
25 property, i.e., its value at the time new rates are set in this case.

26 **Q. AREN'T YOU CONCERNED THAT THE USE OF THE RCND RATE**

1 **BASE AS THE "FAIR VALUE" RATE BASE WILL OVERSTATE RATE**
2 **BASE AND RESULT IN UNREASONABLE RATES?**

3 A. No. As I understand the concept of "fair value," which is used in setting rates in
4 Arizona, the value of the plant and property on which the Company is entitled to
5 earn a fair return should be its current value, as opposed to its book or original
6 cost. The latter valuation method would not take into account increases in
7 construction costs and similar changes that would cause the current value of the
8 plant and property to be greater than their original cost.

9 In addition, as explained above, the accumulated depreciation balance has
10 been trended in the same manner as plant, reducing the RCNB rate base. Also,
11 Citizens' AIAC and CIAC balances at the time the Citizens' transaction closed last
12 January have been imputed to Arizona-American. These balances, which are
13 deducted from the RCND rate base, have also been trended, decreasing the RCND
14 rate base. Thus, the methodology used by the Company reflects the current costs
15 to construct the plant, while assuming corresponding increases in the accumulated
16 depreciation balance and the AIAC and CIAC balances. This valuation approach
17 is therefore relatively conservative.

18 **Q. IS THERE ANY OTHER SUPPORT FOR USING THE RCND RATE BASE**
19 **AS THE "FAIR VALUE" RATE BASE IN THIS CASE?**

20 A. Yes. As discussed in the Direct Testimony of David P. Stephenson, and as I have
21 already noted, Arizona-American recently completed the purchase of Citizens
22 Communications' water and wastewater assets in Arizona, including the Tubac
23 water district. As Mr. Stephenson explains, this transaction involved an arms-
24 length purchase/sale of the Citizens' assets, negotiated between two independent
25 parties. The purchase price was, in total, approximately \$276,500,000. This price
26 included an amount in excess of Citizens' book value equal to approximately

1 \$71,000,000. The allocation of this acquisition premium, i.e., the amount paid by
2 Arizona-American in excess of the original cost of the utility plant and property, to
3 the instant districts is shown on Schedule B-2. The fact that the Tubac water
4 district was recently purchased in an arms-length transaction for an amount
5 substantially above book cost is further evidence that use of the RCND rate base as
6 the FVRB is appropriate under the circumstances.

7 **Q. ARE YOU SUGGESTING THAT THE "FAIR VALUE" RATE BASE BE**
8 **EQUAL TO THE PRICE AT WHICH THE CITIZENS ASSETS' WERE**
9 **PURCHASED BY ARIZONA-AMERICAN?**

10 **A.** Although that is not the Company's position, there is some logic to that approach.
11 The amount paid by Arizona-American represents Arizona-American's actual
12 investment in the utility plant and property used to furnish service. Thus, if the
13 rate base were based solely on the Company's investment, then it would be
14 appropriate to use the amount of that investment – the actual purchase price paid –
15 as the rate base, and allow the utility to earn a reasonable return on that investment.

16 However, it is my understanding that a FVRB should be based on the
17 current value of the utility plant and property devoted to public service. The
18 purchase price paid for the utility plant and property comprising the FVRB in a
19 recent, arms-length transaction is certainly some evidence of the current value of
20 that plant and property and therefore should be considered by the Commission in
21 setting rates. While it would be inappropriate to rely solely on the purchase price,
22 the purchase price provides additional support for the use of the RCND rate base,
23 as opposed to relying on original cost under the circumstances in this case.

24 **III. INCOME STATEMENT**

25 **Q. WOULD YOU PLEASE EXPLAIN THE ADJUSTMENTS YOU ARE**
26 **PROPOSING TO THE INCOME STATEMENT AS SHOWN ON**

1 **SCHEDULES C-1 AND C-2?**

2 A. The details of the adjustments are shown on Schedule C-2. The adjustments are
3 then carried forward to the C-1 Schedule, which contains the adjusted test year
4 income statement.

5 Adjustment 1 removes Citizens' corporate expenses as recorded on
6 Citizens' books. These expenses were variously recorded in the purchased power,
7 repairs and maintenance, materials and supplies, office expense, outside services,
8 and miscellaneous expenses accounts. These expenses were removed because they
9 do not reflect the expenses of the Tubac water district on a going-forward basis.
10 Adjustments 3 and components of adjustment 10 reflect Arizona-American's
11 estimates of similar expenses on a going-forward basis for the Tubac water district.

12 Adjustment 2 removes all test year salaries and wages and related payroll
13 taxes. These expenses were also removed because they do not reflect the expenses
14 of the Tubac water district on a going-forward basis. Adjustments 4 and
15 components of adjustment 10 reflect Arizona-American's estimates of similar
16 expenses on a going-forward basis and reflect known and measurable changes to
17 test year expenses.

18 Adjustment 3 shows the charges for services provided by American Water
19 Works Service Company ("the Service Company"), allocated to the Tubac water
20 district. These charges replace the expenses, in part, removed in adjustment 1 and
21 2. As explained by Mr. Stephenson, these costs have been allocated based on a
22 previously recognized four-factor formula. The Direct Testimony of B. Kent
23 Turner discusses the nature of the services provided by the Service Company and
24 its relationship to Arizona-American.

25 Adjustment 4 increases salaries and wages and related payroll taxes to
26 match those of the Tubac water district on a going-forward basis. Adjustment 4

1 was prepared using 2002 actual expenses, including estimates of annual expenses
2 for vacant positions. These expenses replace, in part, the expenses removed in
3 adjustment 2 and reflect known and measurable changes to test year expenses.

4 Depreciation expense is annualized in adjustment 5. The proposed
5 depreciation rate for each component of utility plant is on shown on Schedule C-2,
6 page 6. The depreciation rates used are those approved in the prior rate case.

7 The depreciation calculations include plant that is currently under
8 construction and will be completed by December 31, 2002, as well as amortization
9 of deferred regulatory assets allowed in Commission Decisions 61382 (Y2K
10 costs). The method and rate of amortization of these costs are not specified in
11 these decisions. In the instant case, the Company proposes using the composite
12 depreciation rate on plant.

13 The depreciation calculations also include amortization of the Acquisition
14 Adjustment. The Acquisition Adjustment is being amortized over 40 years using a
15 mortgage-style method, as shown on schedule C-2 page 6a. Mr. Stephenson
16 explains the rationale for using mortgage-style amortization his direct testimony.

17 Depreciation expense on CIAC is removed, as CIAC are being amortized.
18 The amortization rate used is equal to 10 years as required by Commission
19 Decision 63584.

20 The adjustment labeled as 6 increases the property taxes based on proposed
21 revenues.

22 **Q. HOW DID YOU COMPUTE THE PROPERTY TAXES AT PROPOSED**
23 **RATES?**

24 **A.** I used the method used by the Arizona Department of Revenue - Centrally Valued
25 Properties ("ADOR" or "the Department"). This method determines the full cash
26 value by using twice the average of three years of revenue, plus an addition for

1 CWIP, and a deduction for the book value of transportation equipment.

2 The assessed value (25% of full cash value) multiplied by the property tax
3 rate results in the property tax. In the instant case, I used the unadjusted revenues
4 for 2001, the adjusted revenues for 2001, and the revenues at proposed rates.

5 **Q. IS THIS SYNCHRONIZATION OF PROPERTY TAX EXPENSE WITH**
6 **REVENUES A COMMISSION PRACTICE, AND IS IT PROPER RATE**
7 **MAKING?**

8 **A.** Yes it is. For example, an adjustment of this nature was specifically addressed and
9 approved in Decision No. 60826 for Far West Water Company. Like income
10 taxes, property taxes must be adjusted to ensure that the new rates are sufficient to
11 produce the authorized return on rate base. Staff normally proposes that property
12 taxes and resulting full cash value be computed used three historic years.
13 However, this method of computing adjusted property taxes insures that the utility
14 will not earn its authorized rate of return, because property tax expense is a direct
15 function of revenues and will increase as revenues increase.

16 **Q. MR. BOURASSA, ISN'T THERE A LAG FROM THE TIME THAT NEW**
17 **RATES CHARGED CUSTOMERS GO INTO EFFECT, AND THE DATE**
18 **THAT THE PROPERTY TAX IS ACTUALLY PAID?**

19 **A.** Yes. As an example, if new rates for the systems went into effect on January 1,
20 2003, the property tax bill based on these new rates would first appear on the
21 property tax bill received in September 2004. However, the Company should be
22 accruing property taxes to match the revenues collected. Thus, there is no
23 mismatch between revenues and expenses. Further, the property taxes resulting
24 from my calculation are based only a portion of proposed revenues. To properly
25 consider the future impact of the rate increases, I should have computed the
26 proposed property taxes based only on proposed revenues rather than averaging

1 proposed and historic revenues. Consequently, this adjustment is conservative.

2 **Q. PLEASE CONTINUE WITH YOUR DESCRIPTION OF THE INCOME**
3 **STATEMENT ADJUSTMENTS.**

4 Adjustment 7 synchronizes interest expense with the Company's FVRB. The
5 weighted cost of debt from Schedule D-1 is multiplied by the FVRB contained on
6 Schedule B-1 to derive the interest expense for computation of the income taxes.

7 Adjustment 8 shows the rate case expense. The amount and basis for the
8 requested amount of rate case expense are discussed by Mr. Stephenson in his
9 direct testimony. The Company is proposing to amortize rate case expense over 3
10 years.

11 Adjustment 9 is intentionally left blank.

12 Adjustment 10 includes estimated additional corporate overhead expenses.
13 These expenses include general insurance, employee group insurance, 401(k)
14 costs, employee incentives, customer notifications, training, bank service charges,
15 etc., and were grouped by salaries and wages, office expense, insurance, and
16 miscellaneous expense. The allocation basis that is used includes employee
17 counts, year-end customer counts, fair value rate base, adjusted test year revenues,
18 as well as pro forma plant depending on the nature of cost allocated. The expense
19 adjustment replaces the expenses, in part, removed in adjustment 1 and adjustment
20 2. Mr. Stephenson addresses these costs in his direct testimony.

21 Adjustment 11 annualizes revenues to the year end number of customers.

22 Adjustment 12 shows lease expense for the Tubac water district's portion of
23 the new corporate office lease. The basis for this expense is discussed in the
24 Direct Testimony of Mr. Robert J. Kuta.

25 Adjustment 13 reflects actual local water testing expenses removed in
26 Adjustment 1. Adjustment 1 removed all water testing related expenses as the

1 water testing costs are included as part of the overhead expenses in adjustment 10.
2 However, some local water test expenses will still be incurred. The costs represent
3 such items as reagent kits for on site monitoring.

4 Adjustment 14 removes non-utility revenues and expenses to eliminate the
5 effects on income taxes.

6 Adjustment 15 is intentionally left blank.

7 Adjustment 16 increases power costs based on additional gallons pumped
8 from revenue annualization in adjustment 11. The adjustment is intended to
9 match additional revenues from revenue annualization as shown in adjustment 11.

10 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

11 **A. Yes.**

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ZEPP

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7 **BEFORE THE ARIZONA CORPORATION COMMISSION**

8 IN THE MATTER OF THE
APPLICATION OF ARIZONA-
9 AMERICAN WATER COMPANY, AN
ARIZONA CORPORATION, FOR A
10 DETERMINATION OF THE
CURRENT FAIR VALUE OF ITS
11 UTILITY PLANT AND PROPERTY
AND FOR INCREASES IN ITS RATES
12 AND CHARGES BASED THEREON
FOR UTILITY SERVICE BY ITS
13 TUBAC WATER DISTRICT.

DOCKET NO. W-01303A-02-_____

14
15 **DIRECT TESTIMONY**
16 **OF**
17 **DR. THOMAS M. ZEPP**
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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is Thomas M. Zepp. My business address is Suite 250, 1500 Liberty
4 Street, S.E., Salem, Oregon 97302.

5 **Q. WHAT IS YOUR PROFESSION AND BACKGROUND?**

6 A. I am an economist and Vice President of Utility Resources, Inc., a consulting firm.
7 I received my Ph.D. in Economics from the University of Florida. Prior to jointly
8 establishing URI in 1985, I was a consultant at Zinder Companies from 1982-1985
9 and a senior economist on the staff of the Oregon Public Utility Commission from
10 1976 to 1982. Prior to 1976, I taught business and economics courses at the
11 graduate and undergraduate levels.

12 I have been deposed or testified on various topics before regulatory
13 commissions, courts and legislative committees including two Canadian regulatory
14 authorities, four Federal agencies and in the states of Alaska, Arizona, California,
15 Colorado, Georgia, Idaho, Illinois, Iowa, Kentucky, Minnesota, Montana,
16 Nebraska, Nevada, New Mexico, Oklahoma, Oregon, Tennessee, Utah,
17 Washington and Wyoming. In addition to cost of capital studies, I have testified as
18 an expert on the valuation of utility property, estimated incremental costs of energy
19 and telecommunications services, and presented rate design testimony.

20 **Q. WHAT COST OF CAPITAL STUDIES HAVE YOU PREPARED BEFORE?**

21 A. I have testified on cost of capital or other financial issues before the Interstate
22 Commerce Commission, Bonneville Power Administration and in 13 states. My
23 studies and testimony have included consideration of the financial health and fair
24 rates of return for Nevada Bell Telephone, Illinois Bell Telephone, General
25 Telephone of the Northwest, Pacific Northwest Bell, U S WEST, Anchorage
26 Municipal Light & Power, Pacific Power & Light, Portland General Electric,

1 Commonwealth Edison, Northern Illinois Gas, Iowa-Illinois Gas and Electric,
2 Puget Sound Power & Light, Idaho Power, Cascade Natural Gas, Mountain Fuel
3 Supply, Northwest Natural Gas, Arizona Water Company, California-American
4 Water Company, California Water Service, Dominguez Water Company,
5 Kentucky-American Water Company, Mountain Water Company, Oregon Water
6 Company, Paradise Valley Water Company, Park Water Company, San Gabriel
7 Valley Water Company, Southern California Water Company, Tennessee-
8 American Water Company and Valencia Water Company. I have also prepared
9 estimates of the appropriate rates of return for a number of hospitals in
10 Washington, a large insurance company, and railroads.

11 **Q. DO YOU HAVE OTHER PROFESSIONAL EXPERIENCE RELATED TO**
12 **COST OF CAPITAL ISSUES?**

13 A. Yes. I published an article "Water Utilities and Risk," Water: the Magazine of the
14 National Association of Water Companies Vol. 40, No. 1 (Winter 1999), and was
15 an invited speaker on the topic of risk of water utilities at the 57th Annual Western
16 Conference of Public Utility Commissioners in June 1998. I also presented a paper
17 "Application of the Capital Asset Pricing Model in the Regulatory Setting" at the
18 47th Annual Southern Economic Association Meetings and published an article
19 "On the Use of the CAPM in Public Utility Rate Cases: Comment" in Financial
20 Management (Autumn 1978). While on the staff of the Oregon Public Utility
21 Commission, I also established a sample of over 500,000 observations of common
22 stock returns and measures of risk and conducted a number of studies related to the
23 use of various methods to estimate costs of equity for utilities. I was invited to
24 lecture at Stanford University to discuss that research.

1 **II. PURPOSE OF TESTIMONY, SUMMARY AND CONCLUSIONS**

2 **Q. WHAT IS THE SUBJECT OF YOUR TESTIMONY IN THIS**
3 **PROCEEDING?**

4 **A.** Arizona-American Water Company ("Arizona-American" or the "Company") has
5 asked me to estimate its cost of common equity to be used in developing a just and
6 reasonable rate of return on Arizona-American's investment in its utility plant and
7 property devoted to public service for ratemaking purposes. My study is based on
8 data available to investors in early August 2002. I was also asked to review certain
9 published decisions of the Arizona appellate courts related to the use of a "fair
10 value" rate base ("FVRB") in setting rates in Arizona, and to express my opinion
11 as an economist concerning the rate base to which the cost of equity and the
12 overall rate of return should be applied in Arizona based on those decisions. Mr.
13 David Stephenson will testify regarding Arizona-American's capital structure, cost
14 of debt and total cost of capital (rate of return), which includes my recommended
15 cost of equity.

16 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

17 **A.** In this Section II, I outline my testimony and summarize my analysis.

18 In Section III, I discuss my review of certain decisions of the Arizona courts
19 and provide my opinion as an economist about what rate base must be combined
20 with a ROR that includes a market determined estimate of the cost of equity to
21 satisfy the requirements of the Arizona Constitution as interpreted in those
22 decisions.

23 In Section IV, I discuss the risk of water utility common stocks and
24 differences in risk of water utilities and natural gas distribution utilities ("gas
25 utilities") and explain why Arizona-American's higher leverage and unique
26 business risks in Arizona make the Company more risky than an average publicly-

1 traded water utility I examine to determine benchmark equity costs.

2 Section V reports my discounted cash flow ("DCF") equity cost estimates
3 for samples of water utilities and gas utilities.

4 Section VI presents equity cost estimates based on three risk premium
5 approaches. For perspective, I also estimate an equity cost range with the capital
6 asset pricing model ("CAPM").

7 Section VII provides a summary of my analysis and my recommended
8 return on common equity ("ROE") for Arizona-American.

9 **Q. HAVE YOU PREPARED ANY TABLES AND ATTACHMENTS TO**
10 **ACCOMPANY YOUR TESTIMONY?**

11 **A.** Yes. I have prepared 24 tables that support my testimony. These tables are
12 attached to this testimony at Exhibit Zepp Dir. Exh. 1.

13 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

14 **A.** My findings and recommendations are the following:

- 15 1. Arizona-American's cost of common equity is greater than the cost of
16 common equity of the average water utility in my sample of publicly-traded
17 water utilities because it is more leveraged and has other additional business
risks. I estimate Arizona-American's additional leverage requires an equity
cost premium of at least 60 basis points.
- 18 2. The market cost of common equity facing large, publicly-traded water
19 utilities falls in a range of 10.9% to 11.5% at this time:
 - 20 • DCF model estimates for a sample of four publicly-traded water
utilities indicate their average cost of equity is 11.1%;
 - 21 • Based on a DCF analysis of gas utilities, the cost of equity for a
22 comparable risk water utility falls in a range of 11.4% to 11.5%;
 - 23 • The costs of equity derived from three risk premium analyses
24 indicate the cost of equity for publicly-traded water utilities falls in a
25 range of 10.9% to 11.4%.
 - 26 • A range of equity costs indicated by the CAPM overlaps my other
estimates of the cost of equity.
3. An internal rate of return analysis for Middlesex Water and Connecticut

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Water Service, two other water utilities considered by the Utilities Division ("Staff") in past rate cases but not included in my DCF sample, is not inconsistent with my estimated equity cost range for publicly-traded water utilities.

- 4. I estimate Arizona-American's cost of equity falls in a range of 11.5% to 12.1%. I recommend that Arizona-American be allowed to earn a ROE of no less than 11.5%, the bottom of the range of my equity cost estimates. See Summary Table 24, Exh. Zepp Dir. Exh. 1 attached hereto.
- 5. A determination of a ROE and overall rate of return is independent of the determination of an original cost rate base ("OCRB") and determination of the value of the FVRB. As an economist, I conclude the ROR that includes my recommended ROE of no less than 11.5% should be adopted and multiplied by the FVRB to determine revenue requirements for Arizona-American's systems.

III. ARIZONA COURT DECISIONS INDICATE UTILITY RATES SHOULD BE SET TO RECOVER A MARKET-BASED COST OF EQUITY APPLIED TO A FAIR VALUE RATE BASE

Q. WHAT IS THE ISSUE YOU ADDRESS IN THIS SECTION OF YOUR TESTIMONY?

A. The Arizona Constitution provides that "the corporation commission shall, to aid it in the proper discharge of its duties, ascertain the fair value of the property within the State of every public service corporation doing business therein." Arizona Constitution, Art. XV, § 14. Given that the Arizona Constitution requires the use of a "fair value" rate base ("FVRB") in setting rates, a preliminary issue that should be addressed is whether the percentage rate of return on rate base ("ROR"), which is composed of the market cost of equity and embedded costs of debt, should be set independent of the determination of the FVRB or whether the ROR should be adjusted to hold a utility's earnings at the same level that would occur if an original cost rate base ("OCRB") had been used to determine the revenue requirement.

Q. PLEASE DISCUSS WHAT IS MEANT BY A FAIR RATE OF RETURN.

A. A fair rate of return is achieved when a utility is permitted to set rates and charges

1 for service at levels where the expected return provides common stock investors a
2 reasonable opportunity to earn the cost of common equity. Since operating
3 expenses and interest on debt take precedence over payments to common
4 stockholders, the common equity shareholders of the company bear the greatest
5 risk of not receiving expected returns. The U. S. Supreme Court recognized this
6 requirement many years ago. In describing the ROR on a utility's FVRB, the U.S.
7 Supreme Court, in *Bluefield Waterworks*, stated:

8 A public utility is entitled to such rates as will permit it to
9 earn a return on the value of the property which it employs for
10 the convenience of the public equal to that generally being
11 made at the same time and in the same general part of the
12 country on investments in other business undertakings which
13 are attended by corresponding risks and uncertainties; but it
14 has no constitutional right to profits such as are realized or
15 anticipated in highly profitable enterprises or speculative
16 ventures. The return should be reasonably sufficient to assure
17 confidence in the financial soundness of the utility, and
18 should be adequate, under efficient and economic
19 management, to maintain and support its credit and enable it
20 to raise the money necessary for the proper discharge of its
21 public duties.

22 *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n of West Va.*, 262
23 U.S. 679, 692-93 (1923).

24 In the *Hope Natural Gas* decision, the Supreme Court restated this
25 requirement:

26 [T]he return to the equity owner should be commensurate
with returns on investments in other enterprises having
corresponding risks. That return, moreover, should be
sufficient to assure confidence in the financial integrity of the
enterprise, so as to maintain its credit and to attract capital.

Fed. Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944).

Q. YOU QUOTED FROM U.S. SUPREME COURT DECISIONS. ARE
THOSE STATEMENTS CONSISTENT WITH THE ARIZONA
CONSTITUTION AND DECISIONS OF THE ARIZONA COURTS?

1 A. I understand that Arizona courts have recognized and followed relevant U.S.
2 Supreme Court decisions. In *US West Communications*, the Arizona Supreme
3 Court stated: "Whenever possible, however, we construe the Arizona Constitution
4 to avoid conflict with the United States Constitution and federal statutes." *US*
5 *West Communications, Inc. v. Ariz. Corp. Comm'n*, 201 Ariz. 245, 246, 34 P.3d
6 351, 355 (2001).

7 However, as I stated earlier, Arizona differs from most other jurisdictions
8 because of the requirement embodied in the Arizona Constitution that the "fair
9 value" of the utility's plant and property be found and used in setting rates. The
10 Arizona Supreme Court has stated, for this reason, that the "end result" test
11 approved in *Hope* cannot be used in Arizona to justify a particular rate setting
12 approach:

13 It is clear, therefore, that under our constitution as interpreted
14 by this court, the commission is required to find the fair value
15 of the company's property and use such finding as a rate base
16 for the purpose of calculating what are just and reasonable
17 rates. The *Hope* case cannot be used by the commission. To
18 do so would violate our constitution. The statute under
19 consideration in that case prescribed no formula for
20 establishing a rate base. While our constitution does not
21 establish a formula for arriving at fair value, it does require
22 such value to be found and used as the base in fixing rates.
23 The reasonableness and justness of the rates must be related to
24 this finding of fair value.

25 *Simms v. Round Valley Light & Power Co.*, 80 Ariz. 145, 151, 294 P.2d 378, 382
26 (1956). The court also stated:

27 Fair value means the value of properties at the time of inquiry,
28 . . . whereas prudent investment relates to a value at the time
29 of investment. . . . The former allows the increase or decrease
30 in the cost of construction to influence the rate, whereas the
31 latter makes no such allowance. Irrespective of the merits, if
32 any, of the prudent investment theory, because of our
33 constitution the commission cannot use it as a guide in
34 establishing a rate base.

1 *Simms, supra* (citations omitted).

2 Historically, a utility's rates were fixed on the basis of providing a fair
3 return on its FVRB, as the discussion in *Bluefield Waterworks* at pages 690 to 692
4 shows. Arizona courts have continued to state that the Arizona Corporation
5 Commission ("Commission") must use a FVRB in setting rates in Arizona.
6 Recently, the Arizona Supreme Court stated that in a monopolistic setting, "fair
7 value has been the factor by which a reasonable rate of return was multiplied to
8 yield, with the addition of operating expenses, the total revenue a corporation
9 could earn." *US West*, 201 Ariz. at 245, 34 P.2d at 354. That statement is
10 consistent with the Arizona Supreme Court's statement in *Simms* some 45 years
11 earlier that the "reasonableness and justness of the rates must be related to [the]
12 finding of fair value." *Simms*, 80 Ariz. at 151, 294 P.2d at 382.

13 In short, the principles stated by the U.S. Supreme Court on what
14 constitutes a fair rate of return are consistent with the holdings of the Arizona
15 courts. Because of the constitutional requirements in Article 15 of the Arizona
16 Constitution, however, the Commission should establish rates that provide a fair
17 rate of return on the current value of a utility's property, i.e., its FVRB.

18 **Q. WHAT FORMULA HAS THE ACC USED TO DETERMINE A UTILITY'S**
19 **FAIR VALUE RATE BASE?**

20 **A.** It is my understanding that there is no set formula for determining the FVRB.
21 Instead, the Commission may consider any relevant evidence that aids in
22 determining the current value of the utility's plant and property. However, I also
23 understand that the Commission has often determined the FVRB by simply
24 averaging the utility's original cost rate base ("OCRB") and its Reconstruction
25 Cost New Rate Base ("RCNRB") as a default measure of FVRB when multiple
26 indicators of the value of plant and property are not available. While certainly

1 convenient, this approach may ignore other factors and circumstances affecting the
2 current value of the plant, and may ultimately result in a substantially understated
3 FVRB.

4 In this case, Arizona-American is requesting that its adjusted RCNRB be
5 used as its FVRB, as discussed in the Direct Testimony of Thomas J. Bourassa.
6 The RCNRB is based on the trended cost of the plant and property used to furnish
7 service, and therefore should more closely approximate its current value than
8 would the original or historic cost. As explained by Mr. Bourassa, in this particular
9 case, the use of the RCNRB is also supported by the purchase price recently paid
10 by Arizona-American for the water and wastewater systems and other assets
11 owned by Citizens Communications in Arizona. The fact that these systems were
12 recently the subject of an arms-length purchase/sale, involving independent and
13 sophisticated parties, gives further support to using RCNRB as the FVRB instead
14 of an average of OCRB and RCND in this case, as multiple indicators of the
15 current value of a utility's assets are rarely available. Assuming that the goal of
16 finding and using the "fair value" of the utility's property is to ensure that the rates
17 are set on the basis of the current value of the utility's plant and property, it would
18 be more appropriate to use the RCNRB as the FVRB, especially when the
19 purchase price for the Citizens' assets is taken into account.

20 **Q. BELOW YOU PROVIDE EQUITY COST ESTIMATES. DO THOSE**
21 **ESTIMATES DEPEND ON THE TYPE OF RATE BASE USED?**

22 **A.** No. My equity cost estimates are independent of the rate base to which they are
23 applied. The equity cost estimates I present are determined from market data and
24 provide an estimate of the equity return an investor requires on dollars invested in
25 shares of common stock. Actual equity returns depend, in part, on the rate base
26 that is incorporated into the process that sets rates. Those stock prices also depend

1 in part on the present value of cash or securities that an investor expects would be
2 received if the utility were condemned by a public agency, acquired by a
3 municipality or another utility, or merged into another utility. Thus, the percentage
4 equity cost estimates are independent of whatever formula is used to determine the
5 FVRB.

6 **Q. WILL APPLICATION OF A MARKET-BASED RATE OF RETURN TO**
7 **THE FVRB ALWAYS LEAD TO HIGHER PRICES FOR UTILITY**
8 **SERVICES THAN WOULD BE THE CASE IF THE MARKET-BASED**
9 **ROR WERE APPLIED TO AN OCRB?**

10 **A.** No, it would not. In *Simms*, the Arizona Supreme Court recognized that fair value
11 “allows the increase or decrease in cost of construction to influence the rates,
12 whereas [OCRB] makes no such allowance.” *Simms*, 80 Ariz. at 151, 294 P.2d at
13 382. The impact of using a FVRB will vary depending on the utility’s particular
14 circumstances. I would expect that the application of the market-based ROR to a
15 FVRB for a water utility will, in many cases, lead to higher rates than application
16 of a market-based ROR to an OCRB. But in other cases, the FVRB may be less
17 than the OCRB and thus lead to lower prices for utility services than if the OCRB
18 were used to determine such prices. The drafters of the Arizona Constitution
19 apparently wanted Arizona ratepayers to benefit from cost savings just as they felt
20 that stockholders should be allowed to earn a return on the current value of their
21 assets if costs have increased.

22 **Q. WHAT IS THE SIGNIFICANCE OF SUCH COST CHANGES?**

23 **A.** It means that the value of the FVRB could be larger or smaller than the value of
24 the OCRB and thus prices for utility services paid by ratepayers when the market-
25 based ROR is multiplied by a FVRB could be higher or lower than rates paid by
26 application of a market-based ROR to an OCRB. With application of a market-

1 based ROR to an OCRB, if subsequent changes in costs have increased or
2 decreased the current value of the property, the earnings requirement would not
3 change.

4 Q. AS AN ECONOMIST, IS IT APPROPRIATE TO DETERMINE THE
5 EARNINGS REQUIREMENT BY MULTIPLYING THE MARKET-BASED
6 ROR TIMES AN OCRB AND THEN SOLVING FOR A ROR THAT,
7 WHEN APPLIED TO THE FVRB, PRODUCES THE SAME DOLLAR
8 LEVEL OF EARNINGS?

9 A. No, it is not. I will call that method the "OCRB-earnings method" because it
10 adopts earnings based on an OCRB even though FVRB is recognized in setting
11 rates. To use the OCRB-earnings method would in fact mean that the OCRB is
12 actually being used to set prices for utility services when Arizona courts have
13 disapproved of the use of an OCRB to determine such prices. The Arizona courts
14 have stated that prices set for utility services should be based on providing a fair
15 rate of return on FVRB – the current value of the utility's property. Limiting a
16 utility's earnings to a dollar return on its OCRB would violate this principle, and
17 effectively adopt the "prudent investment" approach that was disapproved in
18 *Simms*.

19 Moreover, if the FVRB has increased in value and the OCRB-earnings
20 method is used to restate the ROR, it could produce an overall ROR that is less
21 than the cost of debt. Such an outcome would not produce a cost of equity that is
22 based on substantial evidence and may be confiscatory under Arizona's rate-setting
23 requirements.

24 Q. DR. ZEPP, YOU ARE AN ECONOMIST BY TRAINING, AND WHILE
25 YOU HAVE TESTIFIED ON MANY OCCASIONS ON THE COST OF
26 CAPITAL AND OTHER RATEMAKING ISSUES, YOU ARE NOT AN

1 **ATTORNEY. ARE YOU PRESENTING A LEGAL OPINION?**

2 A. No, that is not my intention. As I have stated, I have reviewed and analyzed, as an
3 economist, several U.S. Supreme Court and Arizona appellate decisions, including
4 *Bluefield Waterworks, Hope, Simms, and US West*. My testimony is based on what
5 the courts have stated in those decisions, which is why I have quoted from them
6 extensively. Based on the courts' statements, the regulatory framework appears to
7 be clear. As a professional economist with experience in ratemaking and other
8 types of proceedings involving utilities, I believe I am capable of reviewing and
9 discussing court decisions that pertain to ratemaking principles. In fact, I often
10 review court decisions as well as decisions of regulatory commissions in order to
11 follow changes and developments affecting regulated industries. In many states,
12 including Arizona, commissioners are not required to be attorneys, and yet they
13 must deal with these sorts of legal concepts and requirements. However, if there
14 are other court decisions that I have overlooked or omitted, which contradict the
15 discussion in *Simms* or *US West* about the use of the "fair value" of a utility's
16 property to set rates, for example, I stand to be corrected.

17 **IV. GENERAL RISKS OF WATER UTILITY STOCKS**

18 **Q. AS A PRELIMINARY MATTER, PLEASE DISCUSS THE SAMPLES OF**
19 **UTILITIES YOU HAVE USED IN YOUR DCF ANALYSIS.**

20 A. My sample of water utilities is composed of American States Water, California
21 Water Service Group, Philadelphia Suburban Corp. and SJW Corp. These four
22 water utilities are all of the water utilities the Commission's Utilities Division
23 Staff ("Staff") relied upon to determine DCF equity costs in the Green Valley
24 Water Company case (Docket No. W-02025A-01-0559, Schedule JMR-5, dated
25 February 11, 2002) that have more than 60% of their revenues from water utility
26 operations, are not currently being acquired and are not likely acquisition

1 candidates. Table 1 lists percentages of operating revenues and bond ratings for
2 these four water utilities (as well as the utilities in the Staff sample I have not
3 included in my analysis) and the common equity ratios for Arizona-American and
4 the four utilities I adopt to make equity cost estimates.

5 **Q. PLEASE ELABORATE ON THE REASONS YOU HAVE NOT INCLUDED**
6 **THE OTHER FOUR WATER UTILITIES IN THE SAMPLE YOU USED**
7 **TO MAKE DCF EQUITY COST ESTIMATES?**

8 **A.** I have not included American Water Works in my sample because it has entered
9 into an agreement under which its stock is being acquired by RWE AG, a German
10 provider of utility and other industrial services, at a price premium of 35% over the
11 price at the time of the announcement. Shares of stock for American Water Works
12 trade primarily on the expected timing of completion of the merger, not the cost of
13 equity. Southwest Water was excluded because *C. A. Turner Utility Reports* lists
14 its percentage of water utility revenues at only 42%. Middlesex Water Company
15 and Connecticut Water Service appear to be acquisition targets and thus it is
16 difficult to estimate their equity costs with the traditional DCF model.

17 Table 2 reports premiums water utility investors have received, or in the
18 case of American Water Works, have been proposed to receive, at the time
19 mergers or acquisitions were completed. Those premiums have ranged from 35%
20 to 59% and have averaged 45%. *Value Line* has advised investors to expect such
21 acquisitions and mergers to continue and to expect prices from an acquisition to be
22 as much as four times book value. See *Value Line Investment Surveys* dated May
23 3, 2002 at page 1420 and dated August 6, 1999 at page 1405 (copies attached). As
24 a result, it is reasonable to expect that investors holding water utility stocks have
25 bid up prices to reflect the probability they will receive premiums in the future. If
26 prices have been bid up in expectation of receiving such premiums, dividend yields

1 will be reduced to a level lower than would occur if investors did not expect such
2 premiums to be paid. Consequently, mechanical application of the traditional DCF
3 model will understate the cost of equity.

4 Potential acquisition/merger candidates are expected to have had relatively
5 large increases in stock prices. Based on that criteria, I have excluded Connecticut
6 Water Service and Middlesex Water from my primary DCF equity cost estimates.
7 Those two companies have experienced increases in common stock prices that are
8 substantially above the increases in prices for other water utility stocks and thus
9 appear to be acquisition or merger candidates. As part of my analysis below,
10 however, I do compute a range of equity costs for Connecticut Water Service and
11 Middlesex Water with an alternative version of the model underlying the DCF
12 model.

13 **Q. DID YOU ALSO ANALYZE ANY OTHER COMPANIES IN**
14 **DEVELOPING YOUR RECOMMENDED COST OF EQUITY?**

15 A. Yes, I also evaluated a group of seven natural gas utilities whose stock is publicly
16 traded. This analysis provides another useful equity cost benchmark, which is
17 necessary given the small size of the water utility sample group.

18 **Q. HOW DID YOU DETERMINE THE SAMPLE OF GAS UTILITIES YOU**
19 **USED TO COMPUTE YOUR OTHER DCF EQUITY COST ESTIMATES?**

20 A. Table 3 reports the seven gas utilities that I have relied on to supplement my
21 analysis. The utilities in the gas utilities sample are all of the gas utilities relied
22 upon by Staff to determine equity costs in Black Mountain Gas Company, Docket
23 No. G-03703A-01-0263, that have at least 60% of their revenues from gas
24 operations (as reported by *C. A. Turner Utility Reports*), are not being investigated
25 for fraud, are not gas producers and have at least one bond rating of A or better
26 published by Moody's or S&P. Table 3 also lists the gas utilities from the Staff

1 sample I did not include in my sample and reasons I did not include them in my
2 analysis.¹

3 **Q. HOW DOES THE LEVEL OF RISK FACED BY GAS AND WATER**
4 **UTILITIES COMPARE?**

5 A. When making comparisons between risks of water utilities and gas utilities,
6 investors recognize that all utilities face the risk that regulators may disallow
7 investments they have made and expenses they incur. That is an unavoidable risk
8 of regulation. The other types of risks facing gas utilities and water utilities do
9 differ in certain respects. It is possible, however, to compare two "bottom-line"
10 measures of risk for an average gas utility with comparable measures of risk for
11 the average water utility. That comparison is presented in Table 4. The first
12 measure of risk is beta, the risk measure in the CAPM. The beta provides a
13 measure of the risk of holding a stock in a diversified portfolio. The larger the
14 beta, the higher the risk. For purposes of this table, *Value Line* estimates of betas
15 are presented. The second measure of risk is *Value Line's* Safety Rank. This
16 measure of risk is the risk an investor has if he/she holds an individual stock
17 instead of holding that stock as part of a diversified portfolio. The larger the
18 Safety Rank, the higher the risk. Based on those measures of risk, gas and water
19 utilities have approximately the same level of risk.

20 **Q. IS THERE OTHER EVIDENCE THAT SUGGESTS THE FINANCIAL**
21 **COMMUNITY REGARDS THE RISK OF WATER UTILITIES AND GAS**
22 **UTILITIES TO BE SIMILAR?**

23 A. Yes. In its June 21, 1999 *Utilities & Perspectives*, Standard & Poor's ("S&P")
24 announced that it "has created a single set of financial targets that can be applied

25 ¹ I have excluded NICOR from the sample because it is currently under investigation for
26 fraud and its stock price dropped significantly in response to that announcement, to avoid
over-stating the dividend yield in the DCF analysis.

1 across the different utility segments." It now has "four principal financial targets
2 that it uses to analyze credit quality of all investor-owned electric, natural gas, and
3 water utilities in the U.S." *S&P Utilities & Perspectives*, June 21, 1999, Vol. 6,
4 No. 25, page 2. Past separate targets for water utilities are gone. This decision by
5 S&P, together with the evidence on beta risk and Safety Ranks in Table 4,
6 provides support for using equity costs derived from data for samples of gas
7 utilities to make other estimates of the cost of equity for water utilities equal in risk
8 to those in the sample in Table 1.

9 **Q. HAVE YOU ASSUMED THAT THE UTILITIES IN THE WATER AND**
10 **GAS UTILITIES SAMPLES REQUIRE THE SAME ROEs?**

11 A. No. Even though current evidence indicates the utilities in my water utilities
12 sample and gas utilities sample have approximately the same level of risk, I reduce
13 the estimated equity costs for the gas utilities by 50 basis points, based on my
14 judgment, to provide a conservative adjustment for potential differences in risk of
15 the gas utilities' sample and the water utilities' sample.

16 **Q. IN GENERAL, DOES A WATER UTILITY FACE MORE RISK WHEN IT**
17 **HAS TO MAKE ADDITIONAL INVESTMENTS TO MEET STATE AND**
18 **FEDERAL WATER QUALITY STANDARDS?**

19 A. Yes. Expected or unexpected requirements for additional capital spending means
20 water utilities have to request rate increases more often and seek larger percentage
21 increases in order to maintain fair rates of return. Regulatory procedures are
22 expensive, time consuming, increase uncertainty, and raise doubts in investor
23 minds that regulators will authorize high enough prices and/or price adjustment
24 mechanisms to enable the water utilities to earn fair rates of return. This increases
25 uncertainty about future returns and thus increases risk.

26 Also, investors may be concerned that regulators may delay inclusion of

1 new plant in rate base or not allow part of the dollars invested to be recovered. If
2 such investments are challenged and there is any chance that the Commission will
3 disallow part of the dollars invested or will delay recovery of the costs of those
4 investments, risk increases. From an investor's point of view, it is the *potential* for
5 such disallowances and delays in setting new rates that increases risk. If additional
6 investments were never required, there would be no potential disallowances,
7 delays or possible exclusions and thus investor concerns would never arise and risk
8 would not increase. With the need for increased investments, uncertainty arises
9 and the risk increases.

10 **Q. HAVE YOU STUDIED THE IMPACT OF FINANCING REQUIREMENTS**
11 **ON THE RISK AND COSTS OF CAPITAL FACED BY UTILITIES?**

12 **A.** Yes, I have. In the past, I conducted a study of expected differences in bond costs
13 and common equity costs that faced utilities with different financing requirements.
14 I found that utilities with above average financing requirements required an ROE
15 that was approximately 80 basis points higher than was required by other utilities.
16 Higher financing requirements pushed up bond costs, too.

17 **Q. DOES UNCERTAINTY WITH RESPECT TO WEATHER INCREASE**
18 **RISK?**

19 **A.** Yes. If it is too wet or if it is too dry, water utilities cannot expect to recover all of
20 their fixed costs. If it is too wet, sales of water decrease and fixed costs expected
21 to be collected in commodity charges are not received. If it is very dry, there may
22 be forced or voluntary conservation and reductions in supplies of water that reduce
23 potential sales. There is risk of unexpected cost increases and risk of full recovery
24 of fixed costs.

25 **Q. IS ARIZONA-AMERICAN MORE RISKY THAN THE WATER**
26 **UTILITIES IN THE SAMPLE YOU HAVE USED TO DETERMINE**

1 **EQUITY COSTS?**

2 A. Yes. Arizona-American has a number of factors that makes it more risky. It is
3 more leveraged than the four water utilities in the sample, must make larger,
4 uncertain investments to meet a new federal arsenic requirement and operates in a
5 state where historic test years instead of future test years are used to set rates.
6 These factors increase Arizona-American's risk and required ROE.

7 **Q. WHAT IS THE IMPACT OF LEVERAGE ON RISK?**

8 A. Leverage increases risk. It is often useful to categorize risks into business risk and
9 financial risk. The more debt a firm has, the more financial risk it has. Business
10 risk is not affected by the amount of leverage, but if a firm has more debt and less
11 equity than another firm with the same amount of business risk, the more
12 leveraged firm will be more risky.

13 **Q. DOES A FIRM'S COST OF EQUITY CHANGE WITH CHANGES IN**
14 **LEVERAGE?**

15 A. Yes. Financial principles indicate unequivocally that if two firms have the same
16 level of business risk, the firm with more debt has a higher cost of equity. In past
17 cases, witnesses for Staff and RUCO have recognized this fundamental finance
18 principle.

19 **Q. DOES ARIZONA-AMERICAN HAVE MORE LEVERAGE THAN THE**
20 **AVERAGE WATER UTILITY IN THE SAMPLE YOU HAVE ADOPTED**
21 **TO ESTIMATE DCF EQUITY COSTS?**

22 A. Yes, it does. Table 1 shows Arizona-American's common equity ratio and the
23 average common equity ratio for the sample of water utilities I use to estimate the
24 cost of equity. Arizona-American is more highly leveraged.

25 **Q. HAVE YOU PREPARED A TABLE TO SHOW HOW THE COST OF**
26 **EQUITY INCREASES AS LEVERAGE INCREASES?**

1 A. Yes. Table 5 shows how the cost of equity increases as leverage increases. Based
2 on finance theory, I have assumed the overall incremental cost of capital stays the
3 same if a water utility takes on more financial risk than the average water utility.²
4 Arizona-American has an equity ratio of approximately 40% supporting its
5 operations. That 40% equity ratio compares to the average for the sample water
6 utilities of 50%. Table 5 indicates that with an equity ratio of 40% the cost of
7 equity for a water utility is expected to be 80 to 90 basis points higher than it is for
8 the average utility in the water utilities sample I use to determine DCF equity
9 costs.

10 **Q. BASED ON A CONSIDERATION OF FINANCIAL RISK, DOES**
11 **ARIZONA-AMERICAN REQUIRE A HIGHER ROE THAN THE WATER**
12 **UTILITIES IN YOUR WATER UTILITIES SAMPLE?**

13 A. Yes, it does. In past cases, Staff has recognized that additional financial risk
14 justifies a higher than average ROE. Table 5 shows that the additional financial
15 risk of Arizona-American justifies a risk premium of 80 to 90 basis points. To be
16 conservative, however, I recommend adding only 60 basis points to recognize
17 Arizona-American's additional financial risk.

18 **Q. PLEASE TURN TO YOUR COMMENTS ABOUT BUSINESS RISK. DOES**
19 **ARIZONA-AMERICAN HAVE LARGER AND MORE UNCERTAIN**
20 **INVESTMENT REQUIREMENTS THAN WATER UTILITIES NOT**
21 **OPERATING IN ARIZONA?**

22 A. Yes. A particular concern in Arizona is the federal government's revision of the

23 ² The basis for this theory goes back to Franco Modigliani and Merton Miller, "The Cost
24 of Capital, Corporation Finance, and the Theory of Investment," *American Economic*
25 *Review*, 48 No. 3 (June 1958), 261-297. Based on this theory, within a reasonable range
26 of common equity ratios, "leverage may not matter" and thus the incremental total cost of
capital will stay the same as leverage increases but common equity costs will increase.
The analysis in Table 5 assumes any tax-savings benefits of debt are passed through to
ratepayers.

1 arsenic drinking water standard from 50 PPB to 10 PPB. Arsenic is naturally
2 occurring and is very prevalent in the southwestern region of the United States.
3 From a risk standpoint, this new regulation will have a much greater impact on
4 water companies in Arizona than on water utilities operating in other parts of the
5 country where arsenic is not a major concern. The utilities in the water utilities
6 sample used to make the benchmark DCF equity cost estimates do not face the
7 same level of exposure to this risk as do companies in Arizona. Thus, this new
8 federal requirement increases Arizona-American's risk when compared to the
9 water utilities in Table 1. With the more stringent arsenic requirement, Arizona-
10 American faces all of the risk that flows from having to make substantial new
11 investments to meet the EPA requirements. Above, I explained that when a utility
12 must make larger investments than other utilities, it becomes more risky.
13 Undoubtedly, Arizona-American will need to make relatively more investments to
14 meet the arsenic MCL than the utilities in Table 1 and thus it is more risky.

15 **Q. DOES BUSINESS RISK INCREASE FOR OTHER REASONS?**

16 A. Yes. Risk also increases because Arizona-American's rates are set based on an
17 historical test period, with limited post test period adjustments. However, rate
18 relief must be requested prior to investments being made, if the utility is to recover
19 all of its costs. If such investments and operating costs are not recognized for
20 Arizona-American because of a strict adherence to an historical test period, the
21 uncertainty of the Company making its authorized ROE will increase substantially.

22 **Q. HAVE YOU ADJUSTED YOUR ESTIMATES OF EQUITY COSTS MADE**
23 **FOR UTILITIES IN YOUR WATER UTILITIES SAMPLE TO REFLECT**
24 **ARIZONA-AMERICAN'S GREATER BUSINESS RISKS?**

25 A. No, I have not. It is my understanding that Staff has refused to adjust
26 recommended ROEs to recognize that water utilities in Arizona have the added

1 business risks I have identified above. Thus, to eliminate an issue and to be
2 conservative, I have not included a risk premium for such added business risks in
3 my recommended ROE.

4 **Q. DOES ARIZONA-AMERICAN REQUIRE A RISK PREMIUM ABOVE**
5 **EQUITY COSTS FOR WATER UTILITIES IN YOUR SAMPLE?**

6 **A.** Yes. Considerations of financial risk alone justify an adder for Arizona-American
7 of more than 60 basis points and thus it is a conservative measure of the risk
8 premium that Arizona-American requires.

9 **V. DCF ANALYSES**

10 **Q. DO YOU HAVE ANY GENERAL OBSERVATIONS ABOUT FINANCIAL**
11 **CONDITIONS AND FORECASTS THAT PROVIDE PERSPECTIVE**
12 **ABOUT THE COST OF EQUITY NOW FACED BY ARIZONA-**
13 **AMERICAN?**

14 **A.** Yes. Table 6 shows that, with the exception of 2000, interest rates for Baa
15 corporate bonds are forecasted to be higher than they were in every year since
16 1996. Although current yield for Baa bonds of 7.84% is within the range that
17 prevailed from 1996 to 2001, a consensus of institutional forecasts complied by
18 Blue Chip indicates Baa rates are expected to increase to 8.1% by early 2003 and
19 up to 8.2% in 2004. To the extent that changes in interest rates reflect changes in
20 costs of equity for Arizona-American, the Company's current cost of equity is no
21 lower today than it was during the last six years.

22 **Q. DO YOU HAVE ANY OTHER GENERAL OBSERVATIONS?**

23 **A.** Yes. As shown in Table 7, authorized ROEs for larger Arizona water, sewer and
24 gas utilities (prior to the ROE award for Arizona Water Company's Northern
25 Group in December 2001) fell in a range of 10.5% to 12.0% when Baa rates fell in
26 a range of 7.22% to 8.37%. Also during the period 1997 to 1999, when Baa rates

1 fell in a range of 7.22% to 7.88%, evidence supporting an appropriate ROE for
2 Paradise Valley Water (now Arizona-American)³ was presented, considered and
3 reconsidered, and the Commission authorized a ROE of 11%. The equity cost
4 estimates I present below are consistent with current and forecasted Baa rates
5 being the same or slightly higher than rates prevailing when the 11% ROE for
6 Paradise Valley Water was established and the 10.5% to 12.0% range of ROEs
7 shown in Table 7 were authorized for other Arizona water, sewer and gas utilities.

8 **Q. WAIT A MINUTE. STAFF HAS ARGUED THAT AUTHORIZED ROEs**
9 **SHOULD BE SET AT LOWER RATES TODAY THAN IN THE PAST.**
10 **ARE THERE ANY GENERAL CHANGES IN CREDIT CONDITIONS**
11 **THAT INDICATE THE COST OF EQUITY IS LOWER TODAY THAN IN**
12 **THE PERIOD 1996 TO NOVEMBER 2001?**

13 **A.** No. Interest rates are not lower. And, if anything, the stock market is more
14 volatile and more risky. Recent Staff recommendations to set authorized ROEs at
15 much lower levels than in the past are not the result of changes in interest rates or a
16 reduction in the risk faced by Arizona utilities. Instead, they are the result of
17 changes in the methods, opinions and assumptions now being used by Staff to
18 estimate equity costs.

19 **Q. PLEASE PROVIDE AN OVERVIEW OF YOUR APPROACH TO THE**
20 **DETERMINATION OF DCF EQUITY COST ESTIMATES.**

21 **A.** An ROE for Arizona-American that is fair to ratepayers, allows Arizona-American
22 to attract capital on reasonable terms, and maintain its financial integrity is
23 Arizona-American's cost of equity. As I explained above, that return should be
24 commensurate with returns investors expect to earn on investments of comparable
25 risk. To estimate that cost of equity, the analyst requires market data that reveal

26 ³Paradise Valley Water's name was changed in 2001 to Arizona-American.

1 investors' required returns, but such data are not available for Arizona-American.
2 There is no "pure play" company that is perfectly comparable to Arizona-
3 American. The water utilities in Table 1, however, provide the same service and
4 thus provide a useful starting point in the determination of Arizona-American's
5 cost of equity. As shown in Table 4, the utilities in the gas utilities sample used to
6 make additional equity cost estimates have beta risk and Safety Ranks comparable
7 to the sample water utilities and thus equity costs based on that gas utility sample
8 also provides another useful equity cost benchmark.

9 As explained above, Arizona-American is more risky than the sample water
10 utilities and gas utilities because it is more leveraged than the companies in Table
11 1. In this section of my testimony, I determine average equity costs for the two
12 utility samples based on the DCF model. I also provide a check on that range of
13 equity cost estimates by computing internal rates of return for Middlesex Water
14 and Connecticut Water Service that are consistent with market data and reasonable
15 expected premiums if those utilities are acquired or in mergers. Arizona-
16 American's equity cost is higher than those benchmark estimates because it is
17 more risky and thus I add 60 basis points to those equity cost estimates to
18 determine the cost of equity for Arizona-American.

19 **Q. PLEASE EXPLAIN THE DCF METHOD OF ESTIMATING THE COST**
20 **OF EQUITY.**

21 **A.** The DCF model computes the cost of equity as the sum of an expected dividend
22 yield (" D_1/P_0 ") and expected dividend growth (" g "). The expected dividend yield
23 is computed as the ratio of next period's expected dividend (" D_1 ") divided by the
24 current stock price (" P_0 "). Generally, the constant growth model is computed with
25 formula (1) or (2):

26 (1) Equity Cost = $D_0/P_0 \times (1 + g) + g$

$$(2) \quad \text{Equity Cost} = D_1/P_0 + g$$

where D_0/P_0 is the current dividend yield and D_1/P_0 is found by increasing the current yield by the growth rate. The DCF model is derived from the valuation model shown in equation 3 below:

$$(3) \quad P_0 = D_1/(1+k) + D_2/(1+k)^2 + \dots + D_n/(1+k)^n,$$

or, alternatively,

$$(4) \quad P_0 = D_1/(1+k) + D_2/(1+k)^2 + E(P_2)/(1+k)^2,$$

where, if no premium price is expected,

$$(5) \quad E(P_2) = D_3/(1+k) + D_4/(1+k)^2 + \dots + D_n/(1+k)^n,$$

and where k is the cost of equity; n is a large number; P_0 is the current stock price, D_1, D_2, \dots, D_n are the cash flows expected to be received in periods 1, 2, \dots, n , respectively. In the case of an expected acquisition or merger, P_2 is the price the investor expects to receive at the end of the second period (be it cash or the value of securities offered in a merger).

Q. DO YOU HAVE ANY SPECIAL CONCERNS WITH USING THE DCF MODEL TO ESTIMATE EQUITY COSTS FOR WATER UTILITIES AT THIS TIME?

A. Yes. If investors believe a water utility is a potential merger/acquisition candidate, its stock price will increase to reflect the probability and value expected from the merger/acquisition. Table 2 reports premiums investors have recently received or expect to receive from mergers and acquisitions have been in a range of 35% to 59%. With reference to equation (4) above, if investors expect similar premiums for a water utility, the current price (P_0) will be bid up to reflect the expected price from the acquisition, $E(P_2)$, instead of the stream of future cash flows shown in equation (5). In such a situation, investors do not expect a simple pattern of growth in cash flows. Therefore, the constant growth DCF model no longer

1 applies, and mechanical application of the constant growth DCF model will
2 understate the cost of equity.

3 **Q. GIVEN YOUR CONCERNS WITH MARKET PRICES FOR WATER**
4 **UTILITY STOCKS REFLECTING POTENTIAL FUTURE PREMIUMS**
5 **FROM MERGERS, HOW HAVE YOU PROCEEDED IN THIS CASE?**

6 A. Initially, I use data for the four water utilities in Table 1 and data for the gas
7 utilities in Table 3 to make DCF equity cost estimates with equation (2). Because
8 all water utilities may have prices somewhat biased upward as investors bid up
9 prices in anticipation of the next, currently unknown, acquisition offer, the DCF
10 equity cost estimate for the comparable risk gas utilities becomes very important in
11 my considerations. I also use equation (4) – which is essentially the DCF model
12 written in a different way – to solve for the cost of equity (“k”) as an internal rate
13 of return that equates the current price investors are willing to pay for Middlesex
14 Water and Connecticut Water Service with current dividends, initial and longer-
15 term estimates of dividend growth, and a range of premiums investors could
16 reasonably expect from future sales of those companies. As explained above, I
17 singled out Middlesex Water and Connecticut Water Service from the other water
18 utilities based on the relatively high price increases investors have paid for the
19 stocks of those companies in the last 3 years.

20 **Q. WHAT WATER UTILITY SAMPLE HAVE YOU USED TO MAKE YOUR**
21 **BENCHMARK DCF EQUITY COST ESTIMATES?**

22 A. I use the sample composed of American States Water, California Water Service,
23 Philadelphia Suburban Corporation and SJW Corp. As stated, these four
24 companies are all of the water utilities relied upon by Staff in its estimates of DCF
25 equity costs in the Green Valley Water Company case in February 2002 that have
26 more than 60% of their revenues coming from water utility operations, are not

1 currently involved in merger transactions and are not likely acquisition candidates.

2 My DCF equity cost range for this sample is reported in Table 13.

3 **Q. HOW DID YOU COMPUTE CURRENT DIVIDEND YIELDS?**

4 A. The current dividend yield (" D_0/P_0 ") is computed as the average of the highest and
5 lowest dividend yields during two periods ending in July 2002. The value for D_0 is
6 computed as the sum of the current indicated quarterly dividend and the three prior
7 quarterly dividends for each stock. The high and low prices used to compute the
8 dividend yields are found from data for the most recent 3-month and 12-month
9 periods. Estimates of current dividend yields (in equation 1, " D_0/P_0 ") are reported
10 in Table 8.

11 **Q. HOW DID YOU ESTIMATE GROWTH RATES?**

12 A. In estimating growth rates, I assume investors rely upon an average of analysts'
13 forecasts of future sustainable growth and forecasts of future EPS growth when
14 they form their opinions about future expected growth prospects. To the extent
15 that past DPS and EPS growth provide an indication of future growth prospects,
16 analysts take such past information into account when they form their forecasts of
17 the future.⁴ Once such growth estimates are made, investors buy or sell shares of
18 the stocks until the expected return from the dividend yields plus the growth
19 projections equal the investors' discount rate.

20 **Q. WHAT DO YOU MEAN BY THE "INVESTORS' DISCOUNT RATE"?**

21
22 ⁴ This statement is consistent with an empirical study conducted by David A. Gordon,
23 Myron J. Gordon and Lawrence I. Gould "Choice Among Methods of Share Yield,"
24 *Journal of Portfolio Management* (Spring 1989), pp. 50-55. They found that a consensus
25 of analysts' forecasts of earnings per share for the next five years provides a more
26 accurate estimate of growth required in the DCF model than 3 different historical
measures of growth. They explain that this result makes sense because analysts would
take into account such past growth as indicators of future growth as well as any new
information. As a result, one should expect analysts' forecasts of growth to be superior
measures of growth required by the DCF model.

1 A. By "investors' discount rate" I mean the discount rate that is relevant for the
2 particular stock for the investors who last bought and sold it.⁵ It is the discount
3 rate that will just make the present value of all expected future cash distributions to
4 those investors equal to the market price for a share of stock. That discount rate is
5 also the cost of equity. It is the discount rate where the supply of shares of the
6 stock equal the demand for shares of the stock.

7 **Q. WHAT IS SUSTAINABLE GROWTH?**

8 A. Sustainable growth is a useful indicator of DCF growth that can continue for a
9 relatively long future period of time. Generally, it is derived by combining
10 expected growth from future internal sources (retained earnings) and expected
11 future growth from external sources (sales of common stock above book value).

12 **Q. HAS THIS MEASURE OF DCF GROWTH BEEN DISCUSSED IN THE**
13 **FINANCE LITERATURE?**

14 A. Yes, it has. Myron Gordon is sometimes called the father of the DCF model. In
15 his 1974 book,⁶ Gordon explains that sustainable growth can be expected to come
16 from two sources: from retained earnings ("BR" growth) and from sales of
17 common stock when prices exceed book value ("VS" growth) in the following
18 formula:

19
$$g = BR + VS,$$

20 where

21 $g =$ sustainable growth,

22 $B =$ the retention ratio,⁷

23 ⁵ These investors are called the "marginal" investors. Other investors, not on the margin,
24 may have higher discount rates and thus do not buy the stock or lower discount rates and
thus retain their positions in the stock.

25 ⁶ M. J. Gordon, The Cost of Capital to a Public Utility (Michigan State University, 1974).

26 ⁷ The retention ratio is computed as (1 - the ratio of dividends divided by earnings).

- 1 R = the expected rate of return on common equity,
2 V = 1 - (book value/market value), and
3 S = the fraction of new common equity investors expect a water utility to
4 raise from selling more common stock.

5 Gordon explains why VS growth can be expected when market prices exceed book
6 value but why VS growth is not expected to come into play when market prices are
7 below book values.

8 **Q. HOW DO YOU ESTIMATE EXPECTED BR GROWTH?**

9 A. It is investors' expectations of what the retention ratio ("B") and the expected
10 return on common equity ("R") will be in the future which determine this portion
11 of expected sustainable growth. Multiplying B times R gives the estimate of future
12 sustainable growth from retained earnings. Investors look for measures of future
13 growth when pricing stocks. I have used *Value Line* projections of future returns
14 on equity, future dividends per share and future earnings per share to make the
15 forecasts of BR growth when they were available. This information is probably the
16 most widely available source of forecasted earnings and retention ratios available
17 to investors. For SJW Corp, I have based my estimate of BR growth on an average
18 of historical data⁸ because *Value Line* forecasts are not available. The estimates of
19 BR growth for each of the sample water utilities and the sample average are
20 reported in Table 9.

21 **Q. HAVE YOU ESTIMATED VS GROWTH FOR THE SAMPLE WATER**
22 **UTILITIES?**

23 A. Yes. My estimates of VS growth for the sample of water utilities are presented in
24 Table 10. Water utilities in the sample have sold stock at prices in excess of book

25 ⁸ The averages are based on past DPS, EPS and ROEs for the period 1996 to 2000.
26 Retention ratios assume past growth in DPS and EPS continues for five years to be
comparable with the estimates for the other water utilities.

1 value in recent years and have thus achieved VS growth. Knowledgeable investors
2 would expect such VS growth in the future. Past history and available forecasts
3 indicate investors expect the water utilities in the sample to issue more shares of
4 stock over time. Thus, there will be a positive "S" in VS growth. Also, the
5 average current market-to-book ratio for the sample of water utility stocks is
6 approximately 2.0. Unless stock prices drop to less than half of their current
7 values, there will be a positive "V" for the foreseeable future.

8 **Q. IN THE GREEN VALLEY WATER CASE, STAFF ARGUED THAT THE**
9 **FINANCIAL IMPLICATIONS OF A MARKET-TO-BOOK RATIO**
10 **GREATER THAN 1.0 IS THAT INVESTORS EXPECT THE SAMPLE**
11 **WATER UTILITIES TO EARN BOOK RETURNS ON EQUITY GREATER**
12 **THAN THEIR COST OF EQUITY. DO YOU AGREE?**

13 **A.** No. There are a number of reasons investors may bid up market prices for stocks
14 above book values other than an expectation that a water utility will earn more
15 than its cost of equity. In testimony presented before the Oregon Public Utilities
16 Commission, Mr. John Thornton, who is now the Commission's Chief of the
17 Accounting and Rates Section, listed the following six reasons: (1) public utility
18 commissions do not issues orders simultaneously in all jurisdictions; (2) not all of
19 a company's earnings are regulated; (3) regulatory expenses, revenue and rate base
20 adjustments may cause accounting returns to differ from those calculated on a rate
21 case basis; (4) actual sales do not equal sales assumed in a rate case; (5) market
22 expected ROEs change frequently while rate-case authorized ROEs do not; and (6)
23 regulated subsidiaries constitute only a piece of a holding company pie.⁹ While I
24 agree with Mr. Thornton that those six factors may explain a market price being

25
26 ⁹ Testimony filed by agency staff in Oregon Public Utility Commission case UM 903,
dated November 9, 1998.

1 above book value even if investors expect the water utility to earn no more than its
2 cost of equity, there are at least four more obvious reasons.

3 **Q. WHAT IS THE SEVENTH REASON?**

4 A. As discussed above, the Arizona Constitution and decisions by the Arizona courts
5 require rates and revenue requirements to be based on the fair value of the utility's
6 property at the time of inquiry, not an OCRB. Thus, it is clear that in Arizona, at
7 least, investors should expect that market prices for shares of common stock for
8 utilities that have a FVRB that is larger than the OCRB to exceed book values
9 even if the utility is earning no more than its cost of equity.

10 **Q. LET'S TURN TO COMMON STOCKS IN YOUR SAMPLE THAT DO NOT**
11 **PRIMARILY OPERATE IN ARIZONA. WHAT ABOUT THEM?**

12 A. There are least three other reasons that market prices will exceed book values even
13 in states where OCRB is the basis for regulation. The eighth is based on the
14 concept of opportunity cost. Table 11 shows earned ROEs, authorized ROES and
15 market-to-book ratios for companies *C. A. Turner* included in its water utility
16 category and market-to-book ratios for 721 industrial companies in what *Value*
17 *Line* calls its Industrial Composite. This table shows that the level of market-to-
18 book ratios for industrial companies provides another explanation why market-to-
19 book ratios for water utilities exceed 1.0 even though water utilities have, on
20 average, earned less than their costs of equity. Quite simply, as the composite
21 market-to-book ratio for industrial companies has increased, so has the market-to-
22 book ratio for water utilities, but by less. Investors take into account alternative
23 returns that can be made from investing in industrial stocks, i.e., opportunity costs,
24 as well as ROEs earned by water utilities.

25 **Q. WHAT IS THE NINTH REASON?**

26 A. It is that investors may expect a city or some other public entity to condemn all or

1 part of a water utility and that the public entity will be required by a court to pay
2 the utility the fair market value for it. Water utilities typically have assets that
3 have a value based on reproduction cost new that exceed book value. I have
4 testified on the value of water utility properties and electric utility properties in
5 various court cases in California, Utah and Oregon. Based on my experience, in
6 situations where only a portion of the utility is being condemned, valuations based
7 on both reproduction cost new less depreciation and the income approach indicate
8 utility property has a value well in excess of book value. Investors would be aware
9 that courts can be expected to award potential condemnation values well in excess
10 of book values even if the utility earns no more than its cost of equity.

11 **Q. WHAT IS THE TENTH REASON?**

12 **A.** The tenth reason is based on investors recognizing merger and acquisition prices
13 reported in Table 2, that have been well above book values, can be expected if the
14 water utility is acquired. Three years ago, *Value Line* advised investors that those
15 acquisition prices could be as much as four times book value.¹⁰ With such
16 anticipated sale prices well above book values, a water utility would also be priced
17 above book value even if the water utility made no more than its cost of equity.

18 Naive arithmetic models may suggest market prices would not be above
19 book values unless investors expected water utilities to earn more than their costs
20 of equity. The ten reasons listed above explain why one should not be surprised to
21 find market prices exceed book values. Such naive models are too simple to
22 explain all of the things of importance to investors and why it is reasonable to
23 expect a positive value for "V" even if water utilities are expected to earn no more
24 than their costs of equity. If mechanically applied, such models would place

25 ¹⁰ *Value Line* said, "Investors who hold shares of an acquisition target are poised to profit
26 handsomely, since some purchases have been for as much as four times book value."
Value Line Investment Survey, August 6, 1999, page 1405 (copy attached).

1 utilities at a disadvantage in competing for investment capital with industrials and
2 other unregulated companies, whose stock trades well above book value.

3 **Q. IF YOU DID NOT INCLUDE AN ESTIMATE OF VS GROWTH IN YOUR**
4 **ESTIMATES OF SUSTAINABLE GROWTH, WOULD YOU HAVE TO**
5 **ADJUST YOUR EQUITY COST ESTIMATES?**

6 **A.** Yes. If the sample water utilities are expected to issue more shares of common
7 stock in the future (i.e., "S" is expected to be positive), but VS growth is excluded
8 by the analyst, the exclusion of VS growth implies a hypothetical market price
9 equal to book value and thus the value for "V" would be zero. But if such a
10 hypothetical stock price is assumed for the sample water utilities, for consistency,
11 the hypothetical price should also be assumed to be equal to book value to
12 compute dividend yields. In that case, the hypothetical stock price would be lower
13 and the dividend yield would have to double. This increase in average dividend
14 yield (of about 350 basis points) would more than offset the elimination of VS
15 growth (of approximately 130 basis points). Therefore, if consistent assumptions
16 are made and only BR growth is recognized in the DCF analysis for water utilities,
17 the implied average cost of equity increases by more than 200 basis points.

18 **Q. DO YOU ADVOCATE USING SUCH HYPOTHETICAL PRICES IN THE**
19 **DCF ANALYSIS?**

20 **A.** No. A market-based cost of equity estimate should recognize VS growth and real
21 market prices. The evidence indicates that investors can realistically expect both V
22 and S to be positive, and thus stock prices (and dividend yields) already reflect
23 expected VS growth. If investors expect VS growth for the water utilities sample
24 and it is not recognized by the analyst, the analyst's estimate of the cost of equity
25 will be biased downward.

26 **Q. SHOULD THE COMMISSION RECOGNIZE VS GROWTH EVEN IF**

1 **ARIZONA-AMERICAN DOES NOT PLAN TO ISSUES SHARES OF**
2 **COMMON STOCK TO THE PUBLIC?**

3 A. Yes. VS growth is part of the growth investors could reasonably expect for the
4 water utilities' sample being used to estimate the equity cost; it has nothing to do
5 with whether Arizona-American does or does not issue shares of common stock.
6 If investors expect VS growth for the water utilities sample and it is not recognized
7 in the estimate of sustainable growth, the cost of equity for the sample water
8 utilities will be understated. The inclusion of VS growth is required to obtain a
9 correct estimate of the cost of equity.

10 **Q. WHAT IS YOUR ESTIMATE OF AVERAGE SUSTAINABLE GROWTH?**

11 A. Combining the evidence on expected VS and BR growth rates, the estimate of total
12 sustainable growth is 7.4%. That value is developed in Table 9.

13 **Q. ARE THERE OTHER INDICATORS OF FUTURE GROWTH THAT**
14 **INVESTORS MAY RELY UPON WHEN PRICING SHARES OF WATER**
15 **UTILITY COMMON STOCKS?**

16 A. Yes. Other estimates of forward-looking growth available to investors are
17 analysts' forecasts of future EPS growth. Table 12 shows estimates of future EPS
18 growth rates reported by *First Call* for American States Water and Philadelphia
19 Suburban as well as the analysts' average forecast for the water utility industry.
20 There are few analysts that follow water utility stocks, and even if there is a
21 reported five-year EPS forecast, it may be one made by a single analyst and thus is
22 not a consensus forecast. As a result, I have relied upon the industry average
23 forecast reported by *First Call* in my analysis instead of the limited data for the
24 companies. I have also considered *Value Line*'s forecasts of EPS growth for the
25 water utilities for which those forecasts are available. The average of analysts'
26 forecasts and *Value Line* forecasts is 7.1% at this time, which is close to my 7.4%

1 estimate of sustainable growth.

2 **Q. HOW DID YOU UTILIZE THIS INFORMATION ON DIVIDEND YIELDS**
3 **AND ESTIMATED FUTURE GROWTH TO MAKE YOUR DCF**
4 **ESTIMATE?**

5 A. I adopted an average of my estimate of sustainable growth and analysts' forecasts
6 of growth to determine an overall average growth of 7.2%. I then used the
7 constant growth DCF model specified in equation (1) to compute the DCF equity
8 cost range for the water utilities sample. Table 13 shows the application of this
9 specification of the DCF model to determine the estimated equity cost of 11.1%
10 for the water utilities sample.

11 This estimate of the cost of equity for the water utilities sample, however,
12 understates Arizona-American's equity cost. As explained above, Arizona-
13 American is more leveraged and thus its cost of equity is at least 60 basis points
14 higher than the cost of equity for the typical water utility in the sample.
15 Recognizing the premium for this added risk, the information for the sample water
16 utilities indicates the cost of equity for Arizona-American is 11.7%.

17 **Q. DID YOU DEVELOP A SECOND ESTIMATE OF THE COST OF EQUITY**
18 **WITH THE DCF MODEL?**

19 A. Yes. Another benchmark DCF estimate of the cost of equity was derived from
20 similar data and a comparable analysis for the sample of gas utilities in Table 3.
21 Table 4 shows the average gas utility in that sample has approximately the same
22 risk as the average utility in the water utilities sample. The utilities in the gas
23 utilities sample are all of the gas utilities relied upon by Staff to determine equity
24 costs in the Black Mountain Gas Company rate case, Docket No. G-03703A-01-
25 0263, that have at least 60% of their revenues from gas operations (as reported by
26 *C. A. Turner Utility Reports*), are not being investigated for fraud, are not a gas

1 producer and have at least one bond rating of A or better published by Moody's or
2 S&P. To be conservative, I reduce the equity costs for the gas utilities sample by
3 50 basis points to determine another estimate of the required ROE for a water
4 utility of risk comparable to the water utilities sample. I then add 60 basis points
5 to the adjusted equity cost estimate to determine another equity cost estimate for
6 Arizona-American.

7 **Q. WHERE DID YOU CALCULATE DIVIDEND YIELDS FOR THE GAS**
8 **UTILITIES SAMPLE?**

9 A. Table 14 shows the calculation of current dividend yields for the three-month and
10 the twelve-month periods ending in July 2002.

11 **Q. WHAT IS SHOWN IN TABLE 15?**

12 A. Table 15 shows my calculations of BR growth based on *Value Line* forecasts for
13 utilities in the gas utilities sample, VS growth and average sustainable growth. I
14 used the same method to compute BR growth for the gas utilities that I used to
15 compute BR growth for the utilities in the water utilities sample.

16 **Q. WHERE DID YOU DEVELOP THE ESTIMATES OF VS GROWTH?**

17 A. In Table 16. Because the gas utilities are not expected to issue as many shares of
18 common stock as the utilities in the water utilities sample and have lower market-
19 to-book ratios, the estimated VS growth is smaller than it is for the water utilities.

20 **Q. WHAT IS YOUR ESTIMATE OF AVERAGE SUSTAINABLE GROWTH?**

21 A. 5.9%. That growth rate for the gas utilities is developed in Table 15.

22 **Q. HAVE YOU ALSO EXAMINED ANALYSTS' FORECASTS OF FUTURE**
23 **EPS GROWTH?**

24 A. Yes, I have. Analysts' forecasts of EPS growth for the next five years are
25 available to investors from a number of sources. Table 17 shows averages of
26 analysts' forecasts as reported by *First Call* as well as forecasts published by *Value*

1 *Line.* The average of those forecasts is 6.4%.

2 **Q. WHERE DO YOU REPORT THE RESULTS OF YOUR DCF ANALYSIS**
3 **FOR THE GAS UTILITIES?**

4 A. Table 18 reports the results of the DCF analysis for the gas utilities sample. In
5 making these estimates, I have adopted a growth rate of 6.1%, the average of the
6 estimates of sustainable growth and analysts' forecasts of growth. To determine
7 the equity cost that is a proxy for the cost of equity of the water utilities sample, I
8 reduced the equity cost estimates shown in Table 18 by 50 basis points, but then
9 add 60 basis points to reflect the higher financial risk of Arizona-American. These
10 data indicate that Arizona-American has an equity cost that falls in a range of
11 12.0% to 12.1%.

12 **Q. PLEASE TURN TO YOUR ANALYSIS OF EQUITY COSTS FOR**
13 **MIDDLESEX WATER AND CONNECTICUT WATER SERVICE. WHY**
14 **ARE YOU CONCERNED ABOUT INCLUDING THEM IN THE SAMPLE**
15 **YOU USE TO ESTIMATE EQUITY COSTS WITH A STANDARD DCF**
16 **MODEL?**

17 A. I am concerned because a standard version of the constant growth DCF model
18 produces implausible equity cost estimates. The estimates are implausible because
19 they are below the cost of investment grade bonds. This can be seen by calculating
20 equity costs for them with data previously presented by Staff in the Green Valley
21 Water Company rate case. In that case, Staff estimated these companies would
22 have approximately 4% growth. Table 19 shows the range of prices paid for
23 shares of Connecticut Water Service and Middlesex Water during the last three
24 months. With average dividend yields of 3.28% and 3.84%, the constant growth
25 DCF model would indicate the equity cost for those companies would fall in a
26 range of 7.4% to 8.0%. Such an equity cost range is not credible when the market

1 cost of investment grade bonds is currently 7.84% and is expected to rise to 8.2%.
2 See Table 6. Obviously, something else must be going on in the minds of
3 investors. Risk adverse investors would not bid up stock prices so high that they
4 expect a return from common stocks that is about the same as the return on lower
5 risk bonds.

6 **Q. WHAT DID YOU DO?**

7 A. I used a different approach to estimate a range of equity costs for Middlesex Water
8 and Connecticut Water Service based on evidence that indicates their stock prices
9 include an anticipated stock price premium resulting from either a future merger or
10 being acquired. Table 2 shows that from 1999 to the present, there have been a
11 number of mergers and acquisitions in which investors have received premiums of
12 between 35% and 59% at the time the merger/acquisition were concluded.
13 Between December 1998 and December 2001, re-invested returns for American
14 Water Works, American States Water, California Water and Philadelphia
15 Suburban increased by 32.3%. During that same period, Middlesex Water's
16 common shares provided a re-invested return of 59% and Connecticut Water
17 Service shares provided a re-invested return of 89%, increases that were 20% and
18 39%, respectively, higher than the average increases for other water utilities. The
19 obvious explanation for the above-average increases in common stock prices for
20 Connecticut Water Service and Middlesex Water is that investors expect them to
21 be acquired at a premium or receive favorable compensation from a merger similar
22 to those premiums received by the water utilities listed in Table 2.

23 **Q. IS IT REASONABLE FOR INVESTORS TO EXPECT SUCH PREMIUMS?**

24 A. Yes. As mentioned above, three years ago *Value Line* advised investors that
25 owners of water utilities that were acquired could receive premiums of as much as
26 four times book value. *Value Line Investment Survey*, August 6, 1999, page 1405

1 (copy attached). More recently, *Value Line* has pointed out on numerous occasions
2 that the smaller water utilities are logical merger/acquisition candidates and that
3 such mergers are justified by potential cost savings, obtaining more customers and
4 greater geographical diversity. The cost savings are expected from economies of
5 scale, synergies and lower costs of financing that are available to larger firms. See
6 *Value Line Investment Survey*, May 3, 2002, page 1420 (copy attached).

7 **Q. HOW DID YOU ESTIMATE THE RANGE OF EQUITY COSTS FOR THE**
8 **TWO WATER UTILITIES?**

9 A. I based my estimates on the version of the DCF model I have identified as equation
10 (4) above and assumed investors expect to receive a premium price when the stock
11 is sold. I compute that premium price by increasing the price that would be
12 computed with equation (5) by a potential range in premiums investors could
13 expect based on past premiums reported in Table 2. In order to determine the
14 equity cost, I solve for the internal rate of return that makes the expected cash
15 flows on the right-hand side of equation (4) equal to the price investors are willing
16 to pay today, P_0 on the left-hand side of equation (4).

17 **Q. WHAT IS SHOWN IN TABLE 19?**

18 A. To avoid potential bias by choosing a "spot" price and to avoid potential criticism
19 by using an average price, I have computed the equity cost estimates assuming the
20 current price (P_0) is either the highest or the lowest price during the last three
21 months. Table 19 also shows the price that would be paid to buy one share of
22 stock of each company at the highest and the lowest prices during the last 3 months
23 and the dividends received from the two shares.

24 **Q. WHAT IS SHOWN IN TABLE 20?**

25 A. Table 20 shows the results of my internal rate of return analysis. I do not know
26 exactly what premiums investors expect to receive when and if the stocks are

1 acquired or the Company's merge and thus have made my analysis with ranges of
2 premiums and ranges of time in which the acquisition/merger is expected to occur.
3 I have assumed investors expect to receive a premium within the range of
4 premiums shown in Table 2 that owners of other water utilities received. I have
5 also assumed the acquisition/merger is expected to occur between two and three
6 years into the future.

7 **Q. WHAT GROWTH RATES HAVE YOU ASSUMED?**

8 A. There are no widely-available forecasts of DPS growth for either water utility.
9 Thus, for this analysis, I assume Middlesex Water and Connecticut Water Service
10 initially achieve the projected DPS growth Staff relied upon in the Green Valley
11 Water Company case, as reported in Staff Schedule JMR-4, and further assume
12 that rate of growth continues until the time of the merger. For the terminal growth
13 rate, I assume investors expect these utilities to realize the forecasted industry
14 average growth in EPS of 6.75% provided by *First Call* and reported in my Table
15 12.

16 **Q. GOING FROM LEFT TO RIGHT, PLEASE EXPLAIN EACH ENTRY ON**
17 **THE FIRST LINE OF TABLE 20.**

18 A. The first entry is the assumed initial growth in DPS of 3.13%, the projected DPS
19 growth rate Staff relied upon in the Green Valley Water Company case. The
20 second entry is the terminal growth of 6.75%. It is used to determine the terminal
21 price of the stock (see equation (5) above) that would occur if investors did not
22 expect a premium when the stock is sold. The third entry of 35% is the smallest
23 premium from Table 2. The fourth entry is the current dividend; in terms of the
24 DCF models presented above, it is D_0 . Because I have assumed one share of each
25 stock is owned at the beginning of the period, the combined dividend is \$1.64.
26 The fifth entry is the number of years assumed before the merger or acquisition, in

1 this case a three-year period. The sixth entry is the outlay made at the start of the
2 period to buy one share of each stock. Entries 7, 8 and 9 are the positive cash
3 flows investors would expect to receive with the various assumptions. To be
4 conservative, all cash flows are assumed to be received at the end of the years.
5 The final cash flow includes dividends for the year as well as the sale of the stock
6 at a 35% premium over what the price would have been if investors did not expect
7 to sell it at a premium. The final two entries are estimates of the cost of equity.
8 The first of the two is a trial equity cost value that I adjusted until it equaled the
9 internal rate of return computed from the indicated cash flows.

10 **Q. WHAT DO YOU CONCLUDE FROM YOUR INTERNAL RATE OF**
11 **RETURN ANALYSIS?**

12 **A.** I conclude that if investors expect premiums from the sale of these stocks that fall
13 within the range of premiums received in recent past mergers and acquisitions, and
14 if those investors also expect growth in dividends that I assumed, the average
15 equity cost for Middlesex Water and Connecticut Water Service falls in a range of
16 10.4% to 13.2%. These values, of course, depend upon the assumptions being
17 made. While I think the assumptions I have made are reasonable and consistent
18 with available evidence, I do not give this analysis the same weight I give my DCF
19 equity cost estimates. I do note, however, that my estimated DCF equity cost
20 range for the water utilities sample of 11.1% to 11.5% falls well within the range
21 of 10.4% to 13.2% and thus this evidence on the cost of equity for Middlesex
22 Water and Connecticut Water Service is not inconsistent with my other DCF
23 estimates.

24 **VI. RISK PREMIUM AND CAPM ANALYSES**

25 **Q. DOES COMMON STOCK REQUIRE A RISK PREMIUM WHEN**
26 **COMPARED TO BONDS?**

1 A. Yes. There are legal, theoretical and empirical reasons common stock requires a
2 higher return than bonds. Debt payments take precedent over distributions to
3 common stock holders and thus a positive risk premium is expected when
4 determining Arizona-American's cost of equity. Such a risk premium combined
5 with a forward-looking estimate of the cost of debt provides the basis for a risk
6 premium estimate of the cost of equity.

7 **Q. DO YOU EXPECT RISK PREMIUMS TO BE CONSTANT?**

8 A. No. The theoretical work of Gordon and Halpern,¹¹ and numerous empirical
9 studies, including a 1989 study by the staff of the Oregon Public Utility
10 Commission, a 1993 study by the staff of the Virginia State Corporation
11 Commission, and a 1997 decision of the California Public Utilities Commission
12 indicate that changes in the cost of equity, while moving in the same direction as
13 changes in interest rates, are generally smaller than associated changes in interest
14 rates. Thus, risk premiums change in the opposite direction to changes in interest
15 rates. In the past, I have conducted empirical studies for gas utilities,
16 telecommunications companies, and electric utilities which corroborate the Gordon
17 and Halpern theory.

18 **Q. HOW IS THE BALANCE OF THIS SECTION OF YOUR TESTIMONY**
19 **ORGANIZED?**

20 A. I present three equity cost estimates that were made with the risk premium
21 approach. These approaches are based on the assumption that risk premiums
22 which have occurred in the past can be expected to continue into the future. Also,
23 to be complete and provide perspective, I present an estimate of the cost of equity
24 made with the CAPM that is based on updates of methods Staff has used in the
25

26 ¹¹ "Bond Share Yield Spreads Under Uncertain Inflation," American Economic Review,
66 4 (September 1976) 559-565.

1 past to implement the model.

2 **Q. PLEASE EXPLAIN YOUR FIRST RISK PREMIUM ANALYSIS.**

3 A. The first analysis is presented in Table 21. Initially, I combined data on past
4 returns earned by water utilities¹² and Baa corporate bond rates to determine the
5 past relationship between interest rates and realized returns for water utilities.
6 Panel A of Table 21 shows that realized ROEs for water utilities have decreased
7 less than yields on Baa corporate bonds.

8 Next, in this study and the second risk premium study, I assumed that ROEs
9 authorized by regulatory commissions provide, on average, unbiased estimates of
10 the cost of equity facing the utilities at different points in time. Every commission
11 decision will not provide every utility its cost of equity, but given the goals and
12 responsibilities of regulatory commissions, one should expect that, on average, the
13 cost of equity is awarded and thus the various commission determinations provide
14 an unbiased source of data to conduct the risk premium analysis. In Federal
15 Energy Regulatory Commission Docket No. ER93-465-000, *et al.*, the Financial
16 Analysis Branch of FERC also adopted state regulatory commission
17 determinations of authorized ROEs to determine risk premiums for their cost of
18 equity analysis.

19 Data shown in Table 11 indicate that, on average, water utilities have
20 earned 88 basis points less than their authorized ROEs during the period 1991-
21 2001. For the analysis in Table 21, I made the conservative assumption that, on
22 average, costs of equity equal authorized ROEs and are 40 basis points higher than
23 realized ROES to compute the risk premiums.

24 Panel A shows that when Baa corporate bond rates dropped by 83 basis

25 ¹² The data were compiled by the Water and Natural Gas Branch of the California Public
26 Utilities Commission and are reported in Table 2-4 of its report in Application 01-10-028,
dated March 2002.

1 points, ROEs dropped by 30 basis points and risk premiums increased by 53 basis
2 points. In relative terms, those changes mean that for every 100 basis point
3 decrease in the Baa bond rate,¹³ the risk premium has increased by 64 basis points.

4 Panel B of Table 20 takes the data for water utilities developed in Panel A
5 and combines it with a range of consensus forecasts of the Baa bond rates
6 compiled by Blue Chip in June 2002 for the period 2003 to 2004 to compute a
7 forecasted range of equity costs for a typical water utility. That range of forecasted
8 future Baa corporate bond rates combined with the past relationship between Baa
9 corporate rates and water utility ROEs indicates an estimated equity cost of 11.4%.
10 In July 2002, as reported in Table 6, the actual Baa/BBB utility bond rate was
11 7.84%. With that current Baa/BBB bond rate, the indicated cost of equity for a
12 typical water utility is 11.3%.

13 **Q. PLEASE EXPLAIN YOUR SECOND RISK PREMIUM ANALYSIS.**

14 **A.** A second risk premium analysis was made using data for gas distribution utilities.
15 As in the prior study, ROEs authorized by regulatory commissions for different
16 utilities at different points in time are assumed to equal, on average, the respective
17 costs of equity. My analysis was made with the following model:

18
$$RP_i = A_0 + (A_1 \times Baa_i),$$

19 where RP_i is the risk premium computed by subtracting the measure of the interest
20 rate (Baa corporate bond rate) from the authorized ROE for the particular
21 commission decision, and A_0 and A_1 are the parameters estimated with a statistical
22 regression. If – as expected – risk premiums increase when interest rates fall, the
23 estimated slope (i.e., A_1) will be negative.

24 The results of the regression are shown in Table 22. I used data for 454

25 ¹³ For the last 25 years and 15 years, S&P's average BBB corporate bond rates have been
26 virtually the same as yields on Moody's Baa utility bonds; thus I use the term "Baa bond
rates" interchangeably.

1 different litigated decisions during the period 1982 to 2002 to establish a database
2 for this analysis. The -.51 value for the "slope (A_1)" coefficient means that as Baa
3 corporate bond rates fall, the risk premium goes up. The large t-statistic of -51.4
4 provides statistical support for a conclusion that risk premiums vary inversely with
5 interest rates. The regression result also indicates costs of equity for gas utilities
6 move in the same direction as changes in interest rates but change approximately
7 half as much as the cost of Baa bonds.

8 The results in Table 22 are used to estimate the range in which the cost of
9 equity for a typical water utility falls at this time. In making that estimate, as
10 before, I assumed that the cost of equity for a typical water utility is 50 basis points
11 less than the cost of equity for the typical gas utility. After removing 50 basis
12 points, the evidence in Table 22 indicates an equity cost range of 10.9% to 11.0%
13 for the water utilities sample. This evidence is used to estimate Arizona-
14 American's cost of equity by adding 60 basis points to the estimate of the cost of
15 equity for the water utilities sample to account for Arizona-American's additional
16 financial risk. That calculation indicates Arizona-American has a cost of equity
17 that falls in a range of 11.5% to 11.6%.

18 **Q. PLEASE DISCUSS YOUR THIRD RISK PREMIUM ANALYSIS?**

19 **A.** My third risk premium estimate is made from historical data on actual returns for
20 Moody's gas distribution utility stock index and Baa corporate bond rates for the
21 period 1954 to 2000 displayed in Table 23. In this analysis, I recognized that
22 while realized risk premiums over short periods may differ substantially from
23 investor expectations, over a long period such as 1954 to 2000, the average
24 difference between realized premiums and expected premiums is expected to
25 converge. Thus, the average of annual total market returns on the gas utility stock
26 index less the yield on Baa corporate bonds for the period provide data to derive an

1 estimate of the average risk premium investors have demanded in the past.
2 Assuming investors require the same risk premium in the future as in the past, with
3 a forecasted range of 8.1% to 8.2% for Baa corporate bonds, the estimate of the
4 cost of equity for a typical gas distribution utility falls in the range of 11.8% to
5 11.9%. Again assuming a conservative 50 basis point difference between the
6 required ROE for gas and water utilities, the indicated cost of equity for a typical
7 large water utility falls in the range of 11.3% to 11.4% and Arizona-American's
8 equity cost falls in a range of 11.9% to 12.0%.

9 **Q. HOW DID YOU CONDUCT YOUR CAPM ANALYSIS?**

10 **A.** The capital asset pricing model is written as:

11
$$\text{Equity cost} = \text{RF} + \beta \times \text{MRP},$$

12 where RF, β and MRP are discussed below.

13 There are a number of different ways to implement the CAPM. To be
14 conservative and to reduce controversy, I have implemented the model as was
15 done by Staff in the Green Valley Water Company rate case, with one exception.
16 The exception is my choice of a long-term Treasury security as the measure of the
17 "RF", the risk-free asset (i.e., an asset with a beta of zero). Staff adopted
18 intermediate-term Treasury securities as its measure of RF.¹⁴ The current yield, as
19 of July 25, 2002, on long-term Treasury bonds of 5.3% is adopted as the expected

20
21 ¹⁴ Results of empirical studies of the CAPM and modification of the assumptions of the
22 original (Sharpe-Lintner) CAPM both indicate the required return for the zero beta asset
23 is higher than the yield on long-term Treasury securities and even higher than the return
24 on intermediate-term Treasury notes or Treasury bills. The empirical results mean that
25 equity costs for low beta stocks (such as most utility stocks) will be under-estimated if an
26 asset with a relatively low return is adopted as the zero-beta asset. To be conservative, I
have adopted the return for the Treasury security with the highest published return. It
should be recognized, however, that my choice will bias downward equity cost estimates
for low beta stocks and thus my CAPM estimates are conservative. Staff's choice of an
intermediate-term Treasury security return as the measure of RF will be even further
biased downward than my estimates.

1 return for that long-term Treasury bond.

2 **Q. WHAT DO YOU ADOPT AS YOUR ESTIMATE OF β ?**

3 A. Staff's implementation of CAPM requires an estimate of β , the beta-risk of the
4 typical water utility at issue. I have adopted an average of the betas reported by
5 *Value Line* in its Standard Edition for American States, California Water and
6 Philadelphia Suburban as my estimate of beta risk. These betas are widely
7 available and would be known by investors. They are reported in Table 4. An
8 average of these beta estimates is .62.¹⁵

9 **Q. WHY HAVEN'T YOU CONSIDERED BETA ESTIMATES FOR THE**
10 **WATER UTILITIES IN VALUE LINE'S SMALL AND MID-CAP**
11 **EDITION?**

12 A. *Value Line* publishes betas for Connecticut Water Service, Middlesex Water and
13 SJW Corp in its *Small and Mid-Cap Edition* (formerly the *Expanded Edition*). The
14 academic literature indicates, however, that those beta estimates will be biased
15 downward because they are estimated with weekly data. Smaller companies
16 typically have stocks that are not traded as often as larger stocks. Richard Roll
17 concluded, "trading infrequency seems to be a powerful cause of bias in [beta] risk
18 assessments with short-interval data. Rather severe bias is induced in daily data
19 and the bias is still large and significant with returns measured over intervals as
20 long as one month."¹⁶ Ibbotson Associates have reached the same conclusion and
21 have explained that for relatively small, thinly-traded stocks – such as Connecticut

22
23 ¹⁵ The approach taken here recognizes that *Value Line* betas are probably the most widely
24 available estimates of betas available to investors. To the extent that investors consider
25 betas when pricing common stocks, it is assumed that this source of data is relied upon.

26 ¹⁶ Richard Roll, "A Possible Explanation of the Small Firm Effect," October, 1980,
unpublished manuscript, Graduate School of Management University of California Los
Angeles.

1 Water Service, Middlesex Water and SJW Corp – superior estimates of betas can
2 be made with annual data instead of weekly data used by *Value Line*.¹⁷ Based on
3 this expected bias, I have excluded beta estimates for these small water utilities.

4 **Q. HOW DID YOU ESTIMATE THE EXPECTED MARKET RISK**
5 **PREMIUM?**

6 A. There are a number of ways the expected market risk premium, MRP, could be
7 estimated. Again, to be conservative and to reduce controversy, I used the
8 methods Staff adopted in the Green Valley Water rate case to estimate a range of
9 expected market risk premiums with updated data. One estimate of the MRP is the
10 long-term average market risk premium reported by Ibbotson Associates. Using
11 the long-term Treasury as the measure of RF, the most recent estimate of that long
12 term average is 7.4% for the period 1926-2001 (2002 *SBB* Yearbook, Table 9-1).

13 Staff also made an estimate of the current expected MRP from projections
14 *Value Line* makes for the stocks it follows. As of July 19, 2002, *Value Line*'s
15 projected return for an average stock was 17.7%. Backing out the estimate of the
16 long-term Treasury rate of 5.3%, the implied current market risk premium is
17 12.4%.¹⁸

18 **Q. WHAT IS YOUR ESTIMATED CAPM RANGE?**

19 A. That CAPM range for an average water utility is found as follows:

20	Equity cost	=	RF	+	β	x	MRP
21	9.9%	=	5.3%	+	.62	x	7.4%
21	13.0%	=	5.3%	+	.62	x	12.4%

22 Arizona-American is more leveraged than these publicly-traded water utilities.

23 Adding 60 basis points to reflect the higher financial risk of Arizona-American,

24 ¹⁷ Ibbotson Associates, *Stocks, Bond, Bills, and Inflation Valuation Edition 2002*
25 *Yearbook*, page 130.

26 ¹⁸ The value of 17.7% is computed as $(1.80)^{(1/4)} - 1$ plus 1.9% based on *Value Line*'s
projections on July 19, 2002.

1 the evidence for CAPM indicates the Company has an equity cost that falls in a
2 range of 10.5% to 13.6%. All of my equity cost estimates for Arizona-American
3 fall within this rather wide range and the mid-point of the CAPM range is above
4 the mid-point of my other equity cost estimates.

5 It is difficult to make equity cost estimates with the CAPM because there is
6 no "best" method to implement the model. And even with the limited choices
7 made here, the CAPM produces a wide equity cost range of 310 basis points. Had
8 other implementation methods been included in my analysis, the range would have
9 been larger. Because Staff has used CAPM in the past, I have presented this
10 CAPM estimate of the cost of equity for perspective, but give it no weight in my
11 determination of the cost of equity for Arizona-American.

12 **VII. SUMMARY AND CONCLUSIONS**

13 **Q. HAVE YOU PREPARED A TABLE THAT SUMMARIZES YOUR EQUITY**
14 **COST ESTIMATES?**

15 **A.** Yes. The various equity cost estimates I made are summarized in Table 24.

16 **Q. WHAT EQUITY RETURN DO YOU RECOMMEND THE Commission**
17 **APPROVE FOR ARIZONA-AMERICAN?**

18 **A.** I have determined that Arizona-American's cost of equity falls in a range of 11.5%
19 to 12.1% if 60 basis points are added to benchmark equity costs to account for
20 Arizona-American being more leveraged than the water utilities sample. I
21 recommend the Commission authorize Arizona-American an equity return of no
22 less than 11.5%, the bottom of that range. That return together with a 40%/60%
23 equity/debt capital structure, discussed in Mr. Stephenson's direct testimony, and
24 Arizona-American's embedded cost of debt should be used to determine the fair
25 rate of return.

26 **Q. SHOULD THIS FAIR ROR BE MULTIPLIED BY THE FVRB TO**

1 **DETERMINE RATES FOR ARIZONA-AMERICAN?**

2 A. Yes, it should be. As an economist reading the various Arizona court decisions,
3 the determination of the fair ROR and the FVRB should be independent of one
4 another. It is not appropriate to first determine the dollar return that would occur if
5 the ROR were multiplied by an OCRB and then solve for the ROR that produces
6 the same dollar return when multiplied by the FVRB. Such an approach would
7 effectively ignore the FVRB, and rely on the OCRB to set rates – an approach
8 Arizona courts have disapproved.

9 **Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?**

10 A. Yes.

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12 1359533.1

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ZEPP DIR. EXH. 1
(Attachments 1 and 2; Tables 1-24)

August 6, 1999

WATER UTILITY INDUSTRY

1405

Large companies in the Water Utility Industry are continuing to benefit from long-term consolidation trends. In addition, small- and medium-sized water utilities are beginning to be acquired by electric and energy utilities at handsome premiums.

A cloud continues to hang over the industry, as tort litigation in California has many water utilities edgy. If juries rule against those local utilities, the fallout could be costly.

Although water utility stocks are ranked to underperform the market, they provide conservative investors an opportunity to capture good yields with less risk.

Industry Consolidation

For the most part, water utilities stand as the last true American monopoly. Water companies face little or no competition for water services in a given locale because the barriers to entry are very high. Consequently, large companies looking for earnings growth find that acquisitions are the best way to accomplish this goal. Also, acquisitions help to diversify the larger company, allowing it exposure to different geographic regions, which can be beneficial when one area of the country is struggling. Takeover targets tend to welcome this arrangement because they generally need the extra capital to replace and upgrade existing water distribution networks, since a foot of pipe that cost \$1 to install a hundred years ago now costs approximately \$100.

An interesting phenomenon in the Water Utility Industry is the takeovers by energy companies and electric utilities. Energy and electric utilities have much in common with water companies. All three groups plan for capital investments in distribution systems, read meters, bill customers, and deal heavily with regulators and local laws. By acquiring small- and medium-sized water utilities, these companies are creating economies of scale, while providing their shareholders with diversity and steadier revenues. Investors who hold shares of an acquisition target are poised to profit handsomely, since some purchases have been for as much as four times book value. This kind of capital-appreciation potential is unusual for this industry, which is marked by slow growth and healthy yields.

Tort Litigation

Most water companies are keeping a watchful eye on tort litigation (a civil lawsuit against a party even

INDUSTRY TIMELINESS: 91 (of 94)

though no contract or law was breached) underway in California. The plaintiff's bar in that state has organized and commenced tort lawsuits against several public and private community water systems for allegedly delivering contaminated water, although the companies claim to be in full compliance with state and federal standards. The possibility that judgments could be made against water utilities even though they have broken no law is disturbing for the industry. If these cases succeed, the potential fallout could be higher costs for water utilities in order to defend these kinds of lawsuits, which could occur in other states. Also, these companies may be forced to pay large settlements. Fortunately for the industry, the California Public Utilities Commission is investigating the adequacy of existing drinking water standards and has temporarily put a stop to judicial proceedings.

Meeting Government Regulations

The Safe Drinking Water Act (SDWA), which was last amended in 1996, has provided the basis for current drinking water quality standards. It requires that the Environmental Protection Agency work with state and local authorities to select and test for five potential contaminants every five years. The amended SDWA also provided a \$1 billion revolving loan fund to help local communities to install and upgrade their treatment plants to remain in compliance with drinking water purity standards. Water companies spend anywhere from 15% to 50% of their annual capital budgets to remain in compliance with the SDWA. Many of the companies made large investments to upgrade their infrastructures earlier in the decade, so capital outlays over the next 3- to 5-years should remain stable, or even decline. The need to remain in compliance with the SDWA is a primary driver for the present water utility consolidation trend.

Investment Advice

The water company stocks included in this review are not timely for year-ahead investment. Conservative investors might, however, find those equities with attractive dividend-growth prospects and favorable Safety ranks a worthwhile investment, notwithstanding the aforementioned litigation.

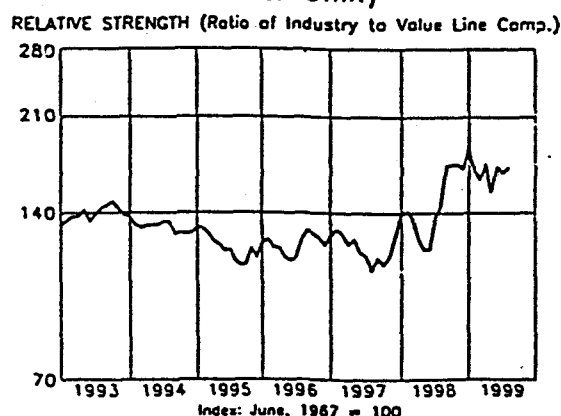
Joseph Espallat

Composite Statistics: Water Utility Industry

1995	1996	1997	1998	1999	2000		02-04
1639.4	1737.2	1878.0	1961.8	2275	2470	Revenues (\$mil)	3020
178.0	214.8	240.2	271.0	290	375	Net Profit (\$mil)	420
38.4%	39.0%	38.1%	37.1%	38.0%	39.0%	Income Tax Rate	38.0%
15.1%	7.8%	6.6%	7.4%	5.5%	6.5%	AFUDC % to Net Profit	6.5%
58.3%	58.3%	57.1%	57.2%	53.0%	52.0%	Long-Term Debt Ratio	48.0%
38.7%	39.4%	39.2%	39.5%	45.0%	46.0%	Common Equity Ratio	44.0%
4598.4	5287.2	5720.2	6200.0	6650	7070	Total Capital (\$mil)	8300
5508.0	6342.8	6741.6	7294.4	7865	8280	Net Plant (\$mil)	9530
6.0%	6.0%	6.2%	6.3%	6.5%	7.0%	Return on Total Capl	7.5%
8.9%	9.3%	9.8%	10.2%	10.5%	10.5%	Return on Shr. Equity	11.5%
9.2%	9.8%	10.3%	10.7%	11.0%	11.0%	Return on Com Equity	12.0%
2.3%	3.3%	3.6%	4.1%	3.0%	3.5%	Retained to Com Eq	4.5%
77%	68%	66%	63%	70%	70%	All Div'ds to Net Prof	60%
13.7	14.4	15.7	18.1			Avg Ann'l P/E Ratio	13.0
.32	.30	.30	.35			Relative P/E Ratio	.85
5.5%	4.6%	4.1%	3.4%			Avg Ann'l Div'd Yield	5.0%

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Water Utility



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May 3, 2002

WATER UTILITY INDUSTRY

1420

Infrastructure costs in the Water Utility Industry may rise dramatically over the coming 20 years. As a result, larger companies are purchasing smaller ones in an effort to achieve economies of scale.

Water Utility stocks are ranked to underperform the market over the coming 12 months.

Industry Consolidation

Infrastructure costs in the Water Utility Industry will likely rise considerably over the next 20 years. These companies must maintain and upgrade their existing systems continually in order to remain in compliance with increasingly stringent rules issued by the Environmental Protection Agency (EPA) and local regulators. Many of the facilities and pipes that treat and transport water were constructed over 100 years ago. The costs of replacing those systems are dramatically higher now, even after adjusting for inflation. Also, the ongoing depletion of nearby bodies of water forces many water utilities to obtain water from more-distant sources at an additional expense. Water is difficult and expensive to transport, since it is heavy and incompressible. Yet, the utilities must keep up with the increasing demand for drinking water, as the domestic population continues to rise. All in all, industry sources estimate that in addition to funds already being used to upgrade water/wastewater systems, \$140 billion to \$500 billion more will be needed to fix up the nation's water infrastructure over the next two decades. A good deal of this shortfall will likely be made up over time by increased federal spending and higher water rates. Nonetheless, water utilities will probably foot much of the bill.

The costs of staying in compliance with drinking water laws are particularly onerous for smaller regional companies because they have a lower customer base over which to spread their outlays. Small and mid-sized water utilities tend to welcome takeover offers from larger companies so that they can gain access to the bigger firm's superior capital resources. The acquiring company attempts to achieve economies of scale by engaging in these transactions. Moreover, it looks to gain greater geographic diversity that can reduce its susceptibility to unfavorable weather patterns and potentially burdensome local regulators. For example, The California Public Utilities Commission (CPUC) has undergone many changes over the past couple of years, and it is now less friendly to the business interests of the

INDUSTRY TIMELINESS: 86 (of 97)

utilities within its state. In the context of regulatory diversity, *American Water Works*, *American States Water*, and *California Water* should benefit from having operations outside of California over the near term.

Large-scale foreign acquirers have been very interested in domestic water utilities over the past few years. Germany-based RWE AG is expected to complete the purchase of this country's largest investor-owned water utility, *American Water Works*, early next year. Foreign utilities are attracted to the stable political environment in the U.S. and vast consolidation opportunities. At present, though, we expect the buying spree to moderate, as these acquirers digest their recent purchases and contend with water-related issues in their home countries.

SDWA Regulations

The Safe Drinking Water Act (SDWA) of 1974 (amended in 1996) authorizes the EPA to work with state and local governments to test for potential impurities in drinking water. The EPA mandates what particular level of a certain contaminant is acceptable per a specified amount of water. Water utilities routinely spend a considerable portion of their annual capital budgets on efforts to stay in compliance with SDWA guidelines. For example, *California Water* estimates that it will cost \$125 million over the next five years to be in compliance with the EPA's new rule on the allowable level of arsenic in drinking water (10 parts per billion). Water companies must also comply with the Clean Water Act, and numerous state and local laws.

Investment Advice

The Water Utility stocks in this review are not timely for year-ahead investment. Moreover, these issues are currently trading at the high end of their historical P/E ratios, as investors look for a secure dividend and good takeover prospects. As such, we believe that there is some downside risk here as equity markets improve, because investors may become more willing to take on additional risk and move their funds out of this sector in an effort to pursue total-return prospects that are presently not available in this industry.

Joseph Espallat

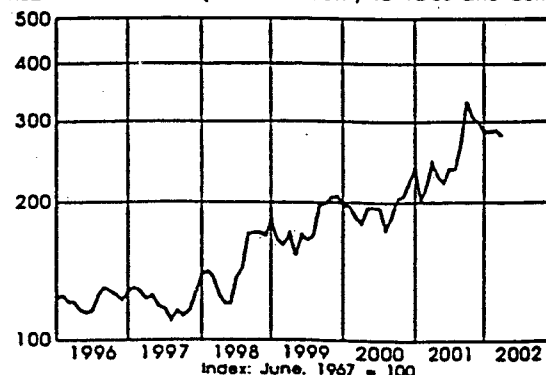
Composite Statistics: Water Utility Industry

1998	1999	2000	2001	2002	2003		05-07
1503.1	1898.0	2054.9	2190.5	2525	2700	Revenues (\$mil)	3340
192.9	222.8	249.7	261.8	290	315	Net Profit (\$mil)	463
33.1%	33.7%	40.1%	39.5%	40.0%	40.0%	Income Tax Rate	40.0%
7.9%	8.6%	5.5%	3.4%	3.5%	4.0%	AFUDC % to Net Profit	8.6%
58.0%	58.2%	54.9%	56.7%	58.0%	57.0%	Long-Term Debt Ratio	51.5%
39.6%	41.9%	44.0%	42.4%	41.8%	42.0%	Common Equity Ratio	46.0%
4524.6	5566.3	5654.6	6198.1	6860	7070	Total Capital (\$mil)	8680
5544.7	7038.7	7545.4	7991.2	8693	9413	Net Plant (\$mil)	11580
6.3%	6.2%	6.6%	6.3%	6.5%	6.5%	Return on Total Cap'l	7.0%
10.2%	9.6%	9.8%	9.8%	10.0%	10.5%	Return on Shc. Equity	11.5%
10.5%	9.8%	9.9%	9.9%	10.0%	10.5%	Return on Com Equity	11.5%
4.4%	4.1%	4.0%	3.9%	4.0%	4.5%	Retained to Com Eq	6.0%
59%	59%	60%	61%	59%	58%	All Div'ds to Net Prof	47%
19.4	19.2	16.3	20.9	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	13.5
1.01	1.09	1.08	1.07			Relative P/E Ratio	.90
3.0%	3.0%	3.7%	2.9%			Avg Ann'l Div'd Yield	3.6%

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Water Utility

RELATIVE STRENGTH (Ratio of Industry to Value Line Comp.)



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Arizona-American Water Company

Table 1

Selected Characteristics of Water Utilities Sample

<u>Companies in Sample^{-a/}</u>	<u>% Water Revenues^{-b/}</u>	<u>S&P Bond Rating^{-b/}</u>	<u>Moody's Bond Rating^{-b/}</u>	<u>Common Equity Ratio^{-c/}</u>
1 American States	91%	A+	A1	45%
2 California Water	100%	AA-	Aa3	49%
3 Philadelphia Suburban	98%	AA-	NR	48%
4 SJW Corp	98%	NR	NR	58%
Average of Four Company Sample				50%
Arizona-American ^{-d/}				40%

<u>Companies Not in Sample^{-a/}</u>	<u>Reason Not Included</u>			
American Water Works	94%	A+	A3	merger in progress
Connecticut Water Service	100%	NR	NR	anticipated merger
Middlesex Water	100%	A+	A2	anticipated merger
Southwest Water	42%	NR	NR	% of water revenues

Sources:

_a/ List of water utilities relied upon by ACC Staff in Docket No. W-01427A-01-0487

_b/ C.A. Turner Utility Reports, August 2002.

_c/ As reported for 2001 by Value Line August 2, 2002 or from SJW Corp SEC Form 10-K.

_d/ Company estimate.

8/05/02

Arizona-American Water Company

Table 2

Premiums Received by Investors from Recent
Mergers and Acquisitions of Water Utilities

Company	Approximate Date of Acquisition or Merger	Highest Price in Year Prior to Announcement	Value at Time of Merger or Acquisition	Basis	Premium
Aquarion	August 1999	\$27.40	\$37.05	cash	35%
United Water Resources	July 2000	\$25.00	\$35.30	cash	41%
E-Town	Year-end 2000	\$48.30	\$68.00	cash	41%
Dominguez	May 2000	\$21.50	\$33.75	stock	57%
Consumers Water	March 1999	\$20.80	\$33.10	stock	59%
American Water Works	Proposed	\$34.00	\$46.00	cash	35%
Average Premium					45%

Arizona-American Water Company

Table 3

Selected Characteristics of Gas Utilities Sample

<u>Companies in Sample^{a/}</u>	Percentage of Gas Revenues _{b/}	S&P Bond Rating _{b/}	Moody's Bond Rating _{b/}
1 AGL Resources	60%	A-	A3
2 Atmos Energy	97%	A-	A3
3 Laclede Gas	90%	A+	A1
4 NW Natural	98%	A	A2
5 Peoples Energy	67%	AA-	Aa2
6 Piedmont Natural	86%	A	A2
7 WGL Holdings	100%	AA-	Aa2

Companies Not in Sample^{a/}

Reason Not Included

Cascade Natural Gas	100%	BBB+	Baa1	bond rating
Energen	39%			% gas revenues
NUI Corp	46%			% gas revenues
NICOR	77%	AA	Aa1	fraud investigation
New Jersey Resources	55%			% gas revenues
ONEOK	22%			% gas revenues
SEMCO Energy	59%	BBB	Baa2	bond rating
South Jersey Industries	55%			% gas revenues
Southwest Gas	86%	BBB-	Baa2	bond rating
UGI Corp	23%			% gas revenues

Sources:

a/ List of gas utilities relied upon by ACC Staff in Docket No. G-03703A-01-0263.

b/ C.A. Turner Utility Reports, August 2002.

8/05/02

Arizona-American Water Company

Table 4

Beta Risk and Safety Rankings of Gas and Water Utilities Samples^{a,b/}

	Beta	Safety Rank
Gas Distribution Utilities		
1 AGL Resources	0.60	2
2 Atmos Energy	0.55	3
3 Laclede Gas	0.55	2
4 NW Natural	0.60	2
5 Peoples Energy	0.70	1
6 Piedmont Natural	0.60	2
7 WGL Holdings	0.60	1
Average	0.60	1.9
Water Utilities		
1 American States	0.65	3
2 California Water	0.60	2
3 Philadelphia Suburban	0.60	2
4 SJW Corp ^{b/}	0.55	2
Average	0.60	2.3

Sources:

^{a/} *Value Line*, Summary and Index, July 19, 2002 with the exception of SJW Corp.

^{b/} From the *Value Line* Small and Mid-Cap Edition, Summary & Index, dated July 19, 2002.

7/24/02

Arizona-American Water Company

Table 5

Development of Alternative Water Utility Costs of Equity
That Reflect Differences in Leverage

Panel A: Average for Sample Water Utilities

		Capitalization Ratio	Incremental Cost ^{a/}	Weighted Cost
Bottom	debt equity	0.50	7.84%	3.92%
		0.50	10.9%	5.45%
				9.37%
Top	debt equity	0.50	7.84%	3.92%
		0.50	11.5%	5.75%
				9.67%

Panel B: Increase Leverage:

		Capitalization Ratio	Incremental Cost ^{b/}	Weighted Cost
Bottom	debt equity	0.60	7.84%	4.70%
		0.40	11.7%	4.67%
				9.37%
Top	debt equity	0.60	7.84%	4.70%
		0.40	12.4%	4.97%
				9.67%

Notes:

^{a/} Incremental cost of debt as reported August 2, 2002 by *Value Line* for Baa-rated utility bonds. Cost of equity range as estimated and reported in Table 24.

^{b/} Assumes no change in incremental debt cost but increases the cost of equity to reflect more financial risk.

8/06/02

Arizona-American Water Company

Table 6

Actual and Forecasted Baa Bond Rates

Year/Month	Baa Corporate Bonds
1996 ^{-a/}	8.05%
1997 ^{-a/}	7.87%
1998 ^{-a/}	7.22%
1999 ^{-a/}	7.88%
2000 ^{-a/}	8.37%
2001 ^{-a/}	7.95%
July 2002 ^{-b/}	7.84%
Forecast for 1/2003 ^{-c/}	8.10%
Forecast for 2004 ^{-d/}	8.20%

Sources:

^{-a/} Federal Reserve.

^{-b/} Value Line, *Selection & Opinion*, August 2, 2002
for recent selected yields at July 25, 2002.

^{-c/} Blue Chip *Financial Forecasts*, quarterly consensus
forecast, July, 2002.

^{-d/} Blue Chip *Financial Forecasts*, long-term
forecast reported in June, 2002.

8/06/02

Arizona-American Water Company

Table 7

Recent Authorized Returns on Equity
For Larger Arizona Water, Sewer and Gas Utilities

Company	Decision Number	Decision Date	Authorized ROE
Citizens Utilities Company; Agua Fria Water Division; Sun City Water Company; Sun City Sewer Company and Sun City West Utilities Company	60172	May 7, 1997	10.50%
Paradise Valley Water Company	60220	May 27, 1997	11.00%
Far West Water Company	60437	Sept 29, 1997	11.50%
Saddlebrooke Utility Company	61008	July 16, 1998	11.30%
Paradise Valley Water Company ^{n/}	61831	July 20, 1999	11.00%
Bermuda Water Company	61854	July 21, 1999	12.00%
Pima Utility Company (Sewer)	62184	Jan 5, 2000	11.75%
Far West Water & Sewer Co. (Water)	62649	June 13, 2000	11.50%
Southwest Gas Corporation	64172	Oct. 30, 2001	11.00%
Arizona Water Company (Northern Group)	64282	Dec. 28, 2001	10.25%

Note:

^{n/} Now named Arizona-American Water Company.

Arizona-American Water Company

Table 8

Average Dividend Yields for Water Utility Sample

	3-Month Average D ₀ /P ₀	12-Month Average D ₀ /P ₀	D ₀ _a/	12-month High Stock Price_b/	12-month Low Stock Price_b/	3-Month High Stock Price_c/	3-Month Low Stock Price_c/
1 American States	3.65%	3.65%	\$0.87	\$29.01	\$20.25	\$29.01	\$20.25
2 California Water	4.92%	4.76%	\$1.12	\$27.75	\$20.45	\$25.70	\$20.45
3 Philadelphia Suburban	2.66%	2.66%	\$0.52	\$25.00	\$16.02	\$25.00	\$16.02
4 SJW Corp	3.29%	3.27%	\$2.68	\$91.25	\$74.65	\$88.25	\$76.01
Average	3.63%	3.58%					

Notes and Sources:

_a/ Dividends paid during the 12 months ending July, 2002.

_b/ Prices for the 12 month period ending July 31, 2002.

_c/ Prices for the 3 month period ending July 31, 2002.

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Arizona-American Water Company

Table 9
Estimates of Sustainable Growth for the Water Utilities Sample

	Retention Ratios Derived from Value Line Forecasts ^{a,e/}	Future ROE ^{b/}	Forecast of BR ^{c/} Growth	VS Growth ^{d/}	Average Sustainable Growth
1 American States	0.48	11.0%	5.4%	0.7%	6.1%
2 California Water	0.43	11.5%	5.1%	1.7%	6.8%
3 Philadelphia Suburban	0.54	14.0%	7.8%	2.8%	10.6%
4 SJW Corp ^{e/}	0.53	11.1%	6.1%	0.0%	6.1%
Average of column	0.49	11.9%	6.1%	1.3%	7.4%

Notes and Sources:

- a/ Based on *Value Line* forecasts of DPS and EPS for the period 2005-2007 published August 2, 2002 or retention ratios based on past data for SJW Corp.
- b/ *Value Line* forecast of ROE if available, otherwise past average earned ROE.
- c/ BR growth adjusted for year-end ROE forecast by *Value Line*.
- d/ Estimated VS growth derived in Table 10.
- e/ Based on historical information for 1996-2000 reported by *Value Line*. Retention ratio computed by growing past DPS by past five-year growth and EPS growth based on an analyst's forecast of 4%.

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Arizona-American Water Company

Table 10

Estimate of Expected VS Growth for Water Utility Sample

	Stock Financing Rate (S)_a/ (a)	Market to Book Ratio_b/ (b)	V (c)	VS growth (d)
1 American States	1.73%	1.73	0.42	0.73%
2 California Water	3.85%	1.79	0.44	1.70%
3 Philadelphia Suburban	4.75%	2.40	0.58	2.77%
4 SJW Corp	0.00%	1.60	0.38	0.00%
Average of Column		1.88	0.46	1.30%

Notes and Sources:

_a/ From *Value Line* data reported August 2, 2002.

_b/ As reported by C. A. Turner in August 2002.

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Arizona-American Water Company

Table 11

Comparisons of Realized and Authorized ROEs and
Market-to-Book Ratios for Water Utilities and
Value Line's Industrial Composite: 1992 - 2001

	Earned ROE	Authorized ROE	Earned Less Authorized ROE	Water Utilities M/B	Industrial Composite M/B
1991	10.00	12.82	-2.82	1.36	2.43
1992	11.60	12.73	-1.13	1.49	3.10
1993	10.40	12.72	-2.32	1.55	3.18
1994	11.40	11.96	-0.56	1.28	2.90
1995	9.70	11.99	-2.29	1.33	3.15
1996	10.50	11.30	-0.80	1.48	3.50
1997	11.00	11.14	-0.14	1.73	4.13
1998	11.10	10.87	0.23	2.06	4.83
1999	11.10	10.87	0.23	2.50	5.21
2000	10.30	10.74	-0.44	2.06	4.85
2001	10.90	10.57	0.33	2.27	3.35
Average			-0.88		

Sources:

- _a/ Year-end *C.A. Turner Utility Reports*
- _b/ *Value Line* Industrial Composite as
reported January 25, 2002.

Arizona-American Water Company

Table 12

Analysts Forecasts of Future Earnings Growth for Water Utility Sample

	First Call ^{-a/}	Value Line ^{-b/}	Average
1 American States			
2 California Water	4.50% ^{-c/}	6.50%	5.5%
3 Philadelphia Suburban	9.00% ^{-c/}	8.50%	8.5%
4 SJW Corp		10.50% ^{-d/}	9.8%
Averages:	6.75% ^{-e/}	7.50%	7.1%

Notes and Sources:

^{-a/} First Call average of analysts' forecasts reported at July 24, 2002.

^{-b/} Value Line forecasts published August 2, 2002

^{-c/} Not included if one forecast or less.

^{-d/} Value Line does not provide forecasts for SJW Corp.

^{-e/} Industry average forecast reported by First Call, July 24, 2002.

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Arizona-American Water Company

Table 13

DCF Equity Cost Range Estimated for Water Utilities Sample
and Arizona-American Water Company

	D_0/P_0	D_1/P_0 ^{a/}	Growth ^{b/}	Water Utilities Sample Equity Cost ^{a/}	Arizona- American Equity Cost ^{c/}
3-Month Dividend Yield	3.6%	3.9%	7.2%	11.1%	11.7%
12-Month Dividend Yield	3.6%	3.8%	7.2%	11.1%	11.7%

Notes and Sources:

a/ Based on $D_1 = D_0 \times (1 + g)$.

b/ Average of estimated sustainable growth and range of growth predicted by analysts. See Tables 9 and 12.

c/ Water utilities sample equity cost plus 60 basis points.

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Arizona-American Water Company

Table 14

Average Dividend Yields for Gas Utilities Sample

	3-Month Average D ₀ /P ₀	12-Month Average D ₀ /P ₀	D ₀ _a/	12-month High Stock Price_b/	12-month Low Stock Price_b/	3-Month High Stock Price_c/	3-Month Low Stock Price_c/
1 AGL Resources	5.36%	5.33%	\$1.08	\$24.50	\$17.25	\$24.17	\$17.25
2 Atmos Energy	5.76%	5.74%	\$1.18	\$24.55	\$17.56	\$24.29	\$17.56
3 Laclede Gas	6.22%	6.17%	\$1.34	\$25.35	\$19.00	\$24.84	\$19.00
4 NW Natural	4.74%	4.92%	\$1.26	\$30.30	\$22.00	\$30.30	\$23.49
5 Peoples Energy	6.06%	5.91%	\$2.05	\$42.94	\$29.07	\$40.45	\$29.07
6 Piedmont Natural	4.89%	4.89%	\$1.56	\$38.00	\$27.35	\$37.99	\$27.35
7 WGL Holdings	5.59%	5.40%	\$1.26	\$29.75	\$19.25	\$27.39	\$19.25
Average	5.52%	5.48%					

Notes and Sources:

_a/ Dividends paid during the 12 months ending July, 2002.

_b/ Prices for the 12 month period ending July 31, 2002.

_c/ Prices for the 3 month period ending July 31, 2002.

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Arizona-American Water Company

Table 15

Forecasts of Sustainable Growth for Gas Utilities Sample

	Retention Ratios Derived from Value Line Forecasts- ^{a/}	Forecasted ROE	Forecast of BR- ^{b/} Growth	VS Growth- ^{c/}	Average Sustainable Growth
1 AGL Resources	0.45	13.0%	6.0%	0.1%	6.1%
2 Atmos Energy	0.41	14.0%	5.9%	1.3%	7.2%
3 Laclede Gas	0.36	12.0%	4.4%	0.2%	4.6%
4 NW Natural	0.48	11.5%	5.7%	0.2%	5.9%
5 Peoples Energy	0.48	12.0%	5.9%	0.0%	5.9%
6 Piedmont Natural	0.36	12.5%	4.6%	0.6%	5.2%
7 WGL Holdings	0.47	12.5%	6.0%	0.1%	6.2%
Average of column	0.43	12.5%	5.5%	0.4%	5.9%

Notes and Sources:

_a/ Value Line forecasts of DPS and EPS growth and ROE published June 21, 2001.

_b/ BR growth adjusted for year-end ROE forecast by Value Line.

_c/ See Table 16.

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Arizona-American Water Company

Table 16

Estimate of Expected VS Growth for Gas Utilities Sample

	Stock Financing Rate-- ^{a/} ("S")	Market to Book Ratio-- ^{b/}	V	VS growth
1 AGL Resources	0.46%	1.44	0.31	0.14%
2 Atmos Energy	6.20%	1.26	0.21	1.28%
3 Laclede Gas	1.22%	1.24	0.19	0.24%
4 NW Natural	1.11%	1.29	0.22	0.25%
5 Peoples Energy	0.00%	1.31	0.24	0.00%
6 Piedmont Natural	1.68%	1.52	0.34	0.57%
7 WGL Holdings	0.68%	1.24	0.19	0.13%
Average of Column		1.33	0.24	0.37%

Notes and Sources:

_a/ From Value Line data published June 21, 2002.

_b/ As reported by C. A. Turner in August 2002.

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Arizona-American Water Company

Table 17

Analysts' Forecasts of Future Earnings Growth for Gas Utilities Sample

	First Call ^{a/}	Value Line ^{b/}	Average
1 AGL Resources	8.0%	9.5%	8.8%
2 Atmos Energy	6.0%	9.0%	7.5%
3 Laclede Gas	3.0%	7.0%	5.0%
4 NW Natural	4.6%	6.5%	5.6%
5 Peoples Energy	6.0%	7.5%	6.8%
6 Piedmont Natural	5.0%	6.5%	5.8%
7 WGL Holdings	4.5%	6.0%	5.3%
Averages	5.3%	7.4%	6.4%

Notes and Sources:

a/ First Call average forecasts reported on Internet on July 24, 2002.

b/ Value Line forecasts published June 21, 2002.

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Arizona-American Water Company

Table 18

DCF Equity Cost Range for Water Utilities Sample and Arizona-American Water Company Based on Data for Gas Utilities Sample

	D_0/P_0	D_1/P_0 - ^{a/}	Growth- ^{b/}	Gas Utilities Sample Equity Cost- ^{d/}	Water Utilities Sample Equity Cost- ^{d/}	Arizona- American Equity Cost- ^{e/}
3-Month Dividend Yield	5.5%	5.9%	6.1%	12.0%	11.5%	12.1%
12-Month Dividend Yield	5.5%	5.8%	6.1%	11.9%	11.4%	12.0%

Notes and Sources:

- _a/ Computed as $D_1 = D_0 \times (1 + g)$.
- _b/ Average of estimated sustainable growth and range of growth predicted by analysts. See Tables 15 and 17.
- _c/ Based on constant growth DCF model.
- _d/ Assumes equity cost is 50 basis points lower.
- _e/ Water utilities sample equity cost plus 60 basis points.

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Arizona-American Water Company

Table 19

Dividends and Range of Prices for Connecticut Water Services
and Middlesex Water Company

	Average D ₀ /P ₀	Current Dividend ^{a/}	Highest Stock Price ^{b/}	Lowest Stock Price ^{b/}
Connecticut Water Service	3.28%	\$0.81	\$31.08	\$20.35
Middlesex Water	3.84%	\$0.83	\$26.72	\$18.30
Buy One Share of Each Stock	3.54%	\$1.64	\$57.80	\$38.65

Notes and Sources:

a/ Dividends paid during last 12 months, as of July 31, 2002.

b/ Prices during the 3 month period ending July 31, 2002.

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Arizona-American Water Company

Table 20

Calculation of Internal Rate of Return for Two Water Utility Stocks That Are Not Yet In Mergers or Being Acquired But Are Expected to Be^{a/}

Initial growth- ^{b/}	Terminal growth- ^{c/}	Price Premium	Current Dividend	Number of Years Before Merger	Cash Flow			Trial Discount Rate	Internal Rate of Return
					Buy Stock	First Year	Second Year		
Lowest Yield and Lowest Premium									
3.13%	6.75%	35%	\$1.64	3	(\$57.80)	\$1.69	\$1.74	10.4%	10.4%
3.13%	6.75%	35%	\$1.64	2	(\$57.80)	\$1.69	\$68.69	10.5%	10.5%
Highest Yield and Highest Premium									
3.13%	6.75%	59%	\$1.64	3	(\$38.65)	\$1.69	\$1.74	12.9%	12.9%
3.13%	6.75%	59%	\$1.64	2	(\$38.65)	\$1.69	\$47.64	13.2%	13.2%

Notes and Sources

- a/ Connecticut Water Service and Middlesex Water had common stock returns of 39% and 20%, respectively, higher than returns for other water utilities during 1999 to 2001.
- b/ ACC Staff projected DPS growth in Green Valley Docket No. W-02025A-01-0559, Schedule JMR-4.
- c/ Industry average earnings per share growth reported by First Call is assumed to determine future cash-flow growth that would occur without stock sale premium.

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Arizona-American Water Company

Table 21

Risk Premiums Computed from Past ROEs Earned by Water Utilities
and Forecasted Cost of Equity Range for Water Utilities

Panel A:

	Baa Corporate Bond Rates ^{b/}	Average Baa Bond Rate	Realized ROEs for Water Utilities ^{a/}	Average ROE	Risk Premium ^{c/}	Average Risk Premium
1991-1995						
1991	9.80%		12.00%		2.60%	
1992	8.98%		10.51%		1.93%	
1993	7.93%		11.60%		4.07%	
1994	8.63%		10.71%		2.48%	
1995	8.20%	8.71%	11.13%	11.19%	3.33%	2.88%
1996-2000						
1996	8.05%		11.60%		3.95%	
1997	7.87%		11.57%		4.10%	
1998	7.22%		10.91%		4.09%	
1999	7.88%		10.56%		3.08%	
2000	8.37%	7.88%	9.81%	10.89%	1.84%	3.41%
Differences in Averages:		-0.83%		-0.30%		0.53%
Relative Change		-100		-36		64

Panel B:

Forecasts of Baa Corporate Bond Rate ^{d/}	Estimated Risk Premium ^{c/}	Forecasted Equity Cost
8.10%	3.27%	11.4%
8.20%	3.21%	11.4%

Notes and Sources:

a/ Source: Tables 2-4 of CPUC WNGB Report, dated March 2002, in A. 01-10-028.

b/ Past Baa rates reported by the Federal Reserve.

c/ Based on evidence reported by C. A. Turner Utility Reports at year-end for the last ten years, the average cost of equity was more than 40 basis points higher than an average of realized ROEs. See Table 11.

d/ Range of consensus forecasts reported by *Blue Chip*, June 2002 for the period 2003 to 2004.

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Arizona-American Water Company

Table 22

Risk Premium Analysis
Regression Analysis of Risk Premiums Based on Authorized Returns
for Natural Gas Utility Stocks^{a/} and Baa Corporate Bond Rates
1982-2002

Regression Formula^{c/}: Risk Premium = $A_0 + A_1 \times \text{Baa Corporate Rate}$

Regression Output:

Constant (A_0)	0.0745
Std Err of Y Est	0.0077
R Squared	0.8541
No. of Observations	454
Degrees of Freedom	452

Slope (A_1)	-0.510
Std Err of Coef.	0.010
t-statistic	-51.4

	Equity Cost Estimate		Predicted Premium ^{c/}	Forecasted Baa Corporate Bond Rate ^{b/}
Bottom	11.42%	=	3.32% +	8.10%
Top	11.47%	=	3.27% +	8.20%

Estimated Equity Cost for the Average Utility
in Water Utilities Sample:

Bottom	=	10.9%
Top	=	11.0%

Notes and Sources:

^{a/} Sources: Annual Surveys of Gas Rate Cases, *Public Utilities Fortnightly*, KAN Rate of Return Data Books, Regulatory Research Associates and the Federal Reserve.

^{b/} Range of consensus forecasts of rates for Baa Corporate bonds for 2003-2004 as of June 2002 as reported by Blue Chip.

^{c/} Regression analysis assumes 8-month lag between Baa bond rate and the date of respective commission orders.

Arizona-American Water Company

Table 23: Risk Premium Analysis
Comparison of Total Returns on Moody's Natural Gas Stock Index
and Baa Corporate Bond Rates

	Rates on Baa Corporate Bonds-a/	Moody's Natural Gas Price Index-b/	Annual Average Dividend-b/	Index Gain/Loss	Dividend Yield	Total Gas Stock Return	Risk Premium
1954	3.45%	26.47					
1955	3.62%	28.10	1.32	6.16%	4.99%	11.14%	7.69%
1956	4.37%	28.23	1.43	0.46%	5.09%	5.55%	1.93%
1957	5.03%	25.78	1.49	-8.68%	5.28%	-3.40%	-7.77%
1958	4.85%	38.71	1.53	50.16%	5.93%	56.09%	51.06%
1959	5.28%	39.59	1.63	2.27%	4.21%	6.48%	1.63%
1960	5.10%	48.21	1.79	21.77%	4.52%	26.29%	21.01%
1961	5.10%	64.96	1.91	34.74%	3.96%	38.71%	33.61%
1962	4.92%	59.73	2.01	-8.05%	3.09%	-4.96%	-10.06%
1963	4.85%	64.62	2.13	8.19%	3.57%	11.75%	6.83%
1964	4.81%	68.24	2.27	5.60%	3.51%	9.11%	4.26%
1965	5.02%	64.31	2.40	-5.76%	3.52%	-2.24%	-7.05%
1966	6.18%	53.50	2.75	-16.81%	4.28%	-12.53%	-17.55%
1967	6.93%	50.49	2.67	-5.63%	4.99%	-0.64%	-6.82%
1968	7.23%	53.80	2.79	6.56%	5.53%	12.08%	5.15%
1969	8.65%	43.88	2.88	-18.44%	5.35%	-13.09%	-20.32%
1970	9.12%	52.33	2.97	19.26%	6.77%	26.03%	17.38%
1971	8.38%	47.86	3.06	-8.54%	5.85%	-2.69%	-11.81%
1972	7.93%	53.54	3.10	11.87%	6.48%	18.35%	9.97%
1973	8.48%	43.43	3.21	-18.88%	6.00%	-12.89%	-20.82%
1974	10.63%	29.71	3.31	-31.59%	7.62%	-23.97%	-32.45%
1975	10.56%	38.29	3.43	28.88%	11.54%	40.42%	29.79%
1976	9.12%	51.80	3.65	35.28%	9.53%	44.82%	34.26%
1977	8.99%	50.88	3.85	-1.78%	7.43%	5.66%	-3.46%
1978	9.94%	45.97	4.07	-9.65%	8.00%	-1.65%	-10.64%
1979	12.06%	53.50	4.33	16.38%	9.42%	25.80%	15.86%
1980	14.64%	56.61	4.59	5.81%	8.58%	14.39%	2.33%
1981	16.55%	53.50	4.95	-5.49%	8.74%	3.25%	-11.39%
1982	14.14%	50.62	5.28	-5.38%	9.87%	4.49%	-12.06%
1983	13.75%	55.79	5.45	10.21%	10.77%	20.98%	6.84%
1984	13.40%	69.70	5.71	24.93%	10.23%	35.17%	21.42%
1985	11.58%	76.58	6.06	9.87%	8.69%	18.57%	5.17%
1986	9.97%	90.89	5.68	18.69%	7.42%	26.10%	14.52%
1987	11.29%	77.25	5.86	-15.01%	6.45%	-8.56%	-18.53%
1988	10.65%	86.76	6.15	12.31%	7.96%	20.27%	8.98%
1989	9.82%	117.05	6.45	34.91%	7.43%	42.35%	31.70%
1990	10.43%	108.86	6.70	-7.00%	5.72%	-1.27%	-11.09%
1991	9.26%	124.32	6.94	14.20%	6.38%	20.58%	10.15%
1992	8.81%	138.79	7.08	11.64%	5.69%	17.33%	8.07%
1993	7.69%	154.06	7.23	11.00%	5.21%	16.21%	7.40%
1994	9.10%	126.96	7.36	-17.59%	4.78%	-12.81%	-20.50%
1995	7.49%	155.94	7.48	22.83%	5.89%	28.72%	19.62%
1996	7.89%	166.64	8.01	6.86%	5.14%	12.00%	4.51%
1997	7.32%	191.04	7.99	14.64%	4.79%	19.44%	11.55%
1998	7.23%	177.24	8.12	-7.22%	4.25%	-2.97%	-10.29%
1999	8.19%	166.84	8.18	-5.87%	4.62%	-1.25%	-8.48%
2000	8.02%	200.68	8.22	20.28%	4.93%	25.21%	17.02%

Average Risk Premium 3.67%

Equity Cost Forecast	Forecast of Baa Bond Rates-c/	Gas Utility Equity Cost	Water Utilities Sample Equity Cost	Az-Am Equity Cost
Low	8.1%	11.8%	11.3%	11.9%
High	8.2%	11.9%	11.4%	12.0%

Sources and Notes:

a/ U. S. Federal Reserve. Monthly rates for December of the indicated year.

b/ Mergent, Moody's 2001 Public Utility Manual.

c/ Range of forecasts for 2003-2004 compiled by Blue Chip, June 2002.

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Arizona-American Water Company

Table 24

Summary Table: Estimated Cost of Equity Ranges for Water Utilities Sample and Arizona-American Water Company

	Estimated Ranges of Equity Costs for Water Utilities Sample		Estimated Range of Equity Costs for Arizona-American Water	
Discounted Cash Flow Estimates				
Based on Water Utilities	11.1% to	11.1%	11.7% to	11.7%
Based on Gas Utilities	11.4% to	11.5%	12.0% to	12.1%
Risk Premium Estimates				
Based on Water Utilities	11.4% to	11.4%	12.0% to	12.0%
Based on Gas Utilities Authorized ROEs	10.9% to	11.0%	11.5% to	11.6%
Based on Moody's Gas Utilities Index	11.3% to	11.4%	11.9% to	12.0%
Estimated Equity Cost Range for Arizona-American Water Company			11.5%	12.1%

8/07/02

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BEFORE THE ARIZONA CORPORATION COMMISSION

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IN THE MATTER OF THE
APPLICATION OF ARIZONA-
AMERICAN WATER COMPANY, AN
ARIZONA CORPORATION, FOR A
DETERMINATION OF THE
CURRENT FAIR VALUE OF ITS
UTILITY PLANT AND PROPERTY
AND FOR INCREASES IN ITS RATES
AND CHARGES BASED THEREON
FOR UTILITY SERVICE BY ITS
TUBAC WATER DISTRICT

DOCKET NO. W-01303A-02-_____

DIRECT TESTIMONY

OF

RONALD L. KOZOMAN

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?**

3 A. Ronald L. Kozoman, 1605 W. Mulberry Drive, Phoenix, Arizona 85015.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am self-employed and provide consulting services to utility companies and other
6 businesses with utility related interests.

7 **Q. COULD YOU BRIEFLY SUMMARIZE YOUR PRIOR REGULATORY**
8 **EXPERIENCE?**

9 A. Yes. I was employed by the Illinois Commerce Commission ("ICC") from 1977 to
10 1981 in various accounting and management positions. While with the ICC, I
11 testified as the ICC Staff's expert witness on cost of capital, rate base and
12 operating income in rate cases involving Commonwealth Edison Company, Illinois
13 Bell Telephone, and other major Illinois utility companies.

14 I was first retained by the Arizona Corporation Commission ("Commission"
15 or "ACC") in 1981 as a consultant to prepare Commission Staff's cost of capital
16 testimony for the Southwest Gas Corporation and Southern Union Gas Company
17 rate cases. I later became Chief Rate Analyst for the Commission. As Chief Rate
18 Analyst, I was responsible for supervising all of the Commission's rate analysts
19 and utility auditors. While with the Commission, I testified on cost of capital
20 concerning Sun City West Utilities, Continental Telephone Company of
21 California, and Mountain Bell Telephone (now Qwest), among others.

22 I have also testified as an independent consultant on behalf of utility
23 companies, utility consumers, and regulatory agencies. I am also an instructor in
24 the areas of public utility accounting and general regulatory practices for the
25 National Association of Regulatory Utility Commissioners in its Annual
26 Regulatory Studies Program held at Michigan State University in East Lansing,

1 Michigan. In 2001, I taught Revenue Requirements Accounting, and Regulatory
2 Accounting Methods and Applications under changing Regulatory and Market
3 Conditions.

4 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

5 A. I am testifying on behalf of Arizona-American Water Company ("Arizona-
6 American" or "the Company"). As explained in the Direct Testimony of David P.
7 Stephenson, the Company is filing five applications for rate increases for several
8 different systems Arizona-American recently acquired from Citizens
9 Communications Company ("Citizens"). Specifically, the systems covered by
10 these five applications include the Sun City water and wastewater districts
11 (Application No. 1); Sun City West water and wastewater districts (Application
12 No. 2); the Mohave water and Havasu water districts (Application No. 3); the
13 Tubac water district, Anthem water district and the Anthem/Tubac wastewater
14 district (Application No. 4); and the Tubac water district (Application No. 5). For
15 convenience, I will sometimes refer to the five applications collectively as the
16 Company's rate filing.

17 **II. PURPOSE OF TESTIMONY, SUMMARY AND CONCLUSIONS**

18 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

19 A. To set forth the proposed new rates for all of the systems included in the
20 Company's rate filing and to explain the schedules concerning those proposed new
21 rates. In this specific testimony, I address the proposed rates for the Tubac water
22 district.

23 **Q. WOULD YOU PLEASE IDENTIFY THE SCHEDULES YOU ARE**
24 **SUPPORTING IN YOUR TESTIMONY?**

25 A. My testimony supports the "H" Schedules included in each of the five applications
26 in the Company's rate filing. I prepared all of these schedules.

1 Q. HAS ARIZONA-AMERICAN PREPARED A COST OF SERVICE STUDY
2 IN SUPPORT OF THE PROPOSED RATES FOR ANY OF THESE
3 DISTRICTS?

4 A. No. Consequently, the Company has not included "G" Schedules in any of the five
5 applications at this time.

6 Q. WHY HASN'T THE COMPANY INCLUDED THE "G" SCHEDULES IN
7 ITS RATE FILING?

8 A. Under R14-2-103.B, cost of service information must be filed if both of the
9 following conditions are present:

10 1) The utility is in a segment of the utility industry that
11 recognizes cost of service studies as important tools for rate
12 design; and

13 2) Costs incurred by the utility are likely to vary significantly
14 from one defined segment of customers to another.

15 Arizona-American is not proposing different increases for different
16 customer classes or groups. Instead, in order to reduce the number of issues and to
17 simplify the Company's rate filing, Arizona-American proposes that necessary rate
18 increases be allocated to all customers equally. In other words, Arizona-American
19 does not propose to change the existing rate design, including the allocation of the
20 revenue requirement between customer types, from that approved by the
21 Commission when it set the present rates for each of the water or wastewater
22 districts covered by the Company's rate filing.

23 Q. WHAT DO YOU MEAN THE COMPANY WILL ALLOCATE RATE
24 INCREASES TO ALL CUSTOMERS EQUALLY?

25 A. After developing a new revenue requirement for each district included in the
26 Company's rate filing, Arizona-American determined the percent increases

1 necessary to meet the new requirement. That percentage increase was then applied
2 to the monthly minimums and commodity rates for all customers in that water and
3 wastewater district uniformly so that each customer will experience the
4 approximately the same percentage increase. I say approximately because, as a
5 result of the Company rounding the proposed rates up or down to the nearest
6 whole cent, the percentage increases will not be exact in every instance.

7 **III. PROPOSED RATE INCREASES FOR TUBAC WATER DISTRICT**

8 **Q. HOW MUCH OF AN INCREASE IS ARIZONA-AMERICAN SEEKING**
9 **FOR THE TUBAC WATER DISTRICT COMPARED TO ADJUSTED**
10 **REVENUES AT PRESENT RATES?**

11 **A.** Arizona-American seeks an approximately 105% increase in revenues over the
12 adjusted test year revenues at existing rates for its Tubac water district.

13 **Q. WHAT ARE THE PRESENT RATES FOR THIS DISTRICT?**

14 **A.** The monthly charges at present rates are listed below.

15

Meter Size	Monthly Minimum	Gallons Included in Monthly Minimum
5/8 x 3/4"	\$15.35	0
3/4"	\$15.35	0
1"	\$23.00	0
1 1/2"	\$46.00	0
2"	\$76.00	0
3"	\$90.00	0
4"	\$132.00	0
6"	\$180.00	0

16
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1 The commodity charge per 1,000 gallons for the Tubac water district is \$1.66 per
2 1,000 gallons for usage up to 8,000 gallons, and \$2.04 per 1,000 gallons for usage
3 over 8,001 gallons for all customers.

4 **Q. PLEASE IDENTIFY ARIZONA-AMERICAN'S PROPOSED RATES FOR**
5 **THE TUBAC WATER DISTRICT?**

6 **A.** The proposed monthly minimum charges are:

7

Meter Size	Monthly Minimum	Gallons Included in Monthly Minimum
5/8 x 3/4"	\$31.54	0
3/4"	\$31.54	0
1"	\$47.26	0
1 1/2"	\$94.52	0
2"	\$156.16	0
3"	\$184.92	0
4"	\$271.22	0
6"	\$369.85	0
8"	\$3,154.00	0

18 The proposed commodity charge per 1,000 gallons is \$3.41 per 1,000 gallons for
19 usage from 0 to 8,000 gallons, and \$4.19 per 1,000 gallons for usage over 8,001
20 gallons.

21 **Q. OTHER THAN THE SLIGHT ADJUSTMENT DUE TO ROUNDING, ALL**
22 **CUSTOMER CLASSES ARE RECEIVING THE SAME PERCENTAGE**
23 **RATE INCREASE, CORRECT?**

24 **A.** Yes.

1 Q. WHAT IS THE IMPACT ON RESIDENTIAL CUSTOMERS USING THE
2 MONTHLY AVERAGE AMOUNT OF WATER AND ON A 5/8 X 3/4 INCH
3 METER?

4 A. Residential customers, those on a 5/8 x 3/4 inch meter consuming the average
5 quantity of water (13,177 gallons per month) will experience a rate increase of
6 \$41.32 per month, or an increase of approximately 105%. The present bill for
7 such customers is \$39.19, while the bill for such customers under the proposed rate
8 increases would be \$80.51 (excluding sales taxes).

9 Q. WILL THE RATE INCREASE AT TUBAC WATER BE PHASED IN?

10 A. Yes. The first year the rates will increase of approximately 40%. Thus an average
11 residential customer on a 5/8 and 3/4 inch meter, would experience a dollar
12 increase of \$15.67, or 40%, from an average of \$39.19, to \$54.86. After the first
13 year the rates would increase the full 105%.

14 IV. REVENUE ANNUALIZATION AND THE "H" SCHEDULES

15 Q. DID YOU PREPARE THE REVENUE ANNUALIZATIONS THAT ARE
16 USED IN MR. BOURASSA'S SCHEDULES?

17 A. Yes, I did.

18 Q. WOULD YOU EXPLAIN HOW THE REVENUE ANNUALIZATIONS
19 WERE PREPARED?

20 A. The revenue annualizations were prepared based on the total customer count as of
21 December of the test year. Annualizations for any increase in the number of
22 customers in each customer class as of December of the test year were made to
23 project revenues and consumption for those annualizations as if those customers
24 had been on the system for the full year. Annualizations for any decrease in the
25 number of customers in a customer class as of December of the test period were
26 made to remove the revenue and consumption for those lost customers as if those

1 customers had not existed on the system for the full year. Thus, the customer
2 count at December was the controlling influence at to whether revenue and
3 consumption was either annualized or removed.

4 **Q. PLEASE EXPLAIN WHAT IS SHOWN ON SCHEDULE H-1?**

5 A. The H-1 Schedule shows the revenues at present and proposed rates from each
6 class of customer, and the annualization of revenues for any change in the number
7 of customers during the year.

8 **Q. PLEASE EXPLAIN WHAT IS SHOWN ON SCHEDULE H-2?**

9 A. The H-2 Schedule shows the rate increase based on the average annual usage for
10 each customer class. The billing to each average user is at present and proposed
11 rates.

12 **Q. WHAT IS CONTAINED ON THE H-3 SCHEDULES?**

13 A. Schedule H-3 contains both the present and proposed rates. The Schedule also
14 shows the dollar increase, and percentage increase.

15 **Q. WHAT IS CONTAINED ON THE H-4 SCHEDULES?**

16 A. Schedule H-4 shows the billing at both present and proposed rates based on
17 various usage levels. The schedule also shows the dollar increase, and percentage
18 increase at various usage levels.

19 **Q. WHAT IS SHOWN ON THE H-5 SCHEDULES?**

20 A. The H-5 Schedules contain the usage for each class of customer during the test
21 year. These schedules are commonly referred to as the bill count schedules, as the
22 schedules show usage by various classes of customers during the test year.

23 **Q. WHY IS THERE MORE THAN ONE SET OF H-1, H-2, AND H-3**
24 **SCHEDULES FOR THE TUBAC WATER DISTRICT?**

25 A. There is a "phase in" set of H-1, H-2, H-3, and H-4 schedules to coincide with
26 Arizona-American's proposal to phase in the rate increases for this district.

1 Q. IS THE COMPANY PROPOSING ANY CHANGE IN ITS OTHER TARIFF
2 CHARGES?

3 A. Yes. The Company is proposing to increase the meter/service line charge to match
4 the recommended charges set forth in the memorandum of the Utilities Division,
5 Engineering Section, dated April 23, 2002. A copy is attached hereto as Kozoman
6 Dir. Exh. 1. The Company is not proposing any other changes in its tariffs.
7 Additionally, the Company proposes to collect the income tax on the meter/service
8 line charge, as these charges are now taxable income. Refunds of the
9 meter/service line charge will include a refund of the original income tax collected
10 spread over the refund period.

11 Q. DOES THIS PROPOSED CHANGE IN METER FEES IMPACT
12 REVENUE?

13 A. No. Meter/Service Line Installation Fees are not revenues. These fees are either
14 considered refundable deposits or advances, and not revenues. As with any
15 advance or deposit, they are also considered a deduction from rate base in the
16 development of a revenue requirement. Thus, any increase in these fees is revenue
17 neutral.

18 Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?

19 A. Yes, it does.

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20

21

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25

26

KOZOMAN DIR. EXH. 1

MEMORANDUM

To: Dorothy Hains Del Smith John Thornton
 John Chelus Gordon Fox
 Lyndon Hammon Claudio Fernandez

From: Marlin Scott, Jr. *MSJ*
 Utilities Engineer
 Utilities Division

Date: April 23, 2002

RE: UPDATE OF STAFF'S TYPICAL SERVICE LINE AND METER
 INSTALLATION CHARGES

The following is an updated list of Staff's typical service line and meter installation charges for 2002. If a company desires to charge an amount greater than these amounts, it should be required to submit appropriate cost justification to do so.

Meter Size	Service line Charge			• Meter Charge			Total Charge		
5/8" x 3/4"	340	to	370	80	to	130	420	to	500
3/4"	340	to	370	155	to	205	495	to	575
1"	390	to	420	190	to	240	580	to	660
1-1/2"	420	to	450	400	to	450	820	to	900
2" - Turbine	550	to	580	895	to	945	1,445	to	1,525
2" - Compound	550	to	580	1,590	to	1,640	2,140	to	2,220
3" - Turbine	715	to	745	1,370	to	1,420	2,085	to	2,165
3" - Compound	735	to	765	2,145	to	2,195	2,880	to	2,960
4" - Turbine	1,030	to	1,090	2,170	to	2,270	3,200	to	3,360
4" - Compound	1,060	to	1,120	3,045	to	3,145	4,105	to	4,265
6" - Turbine	1,550	to	1,610	4,325	to	4,425	5,875	to	6,035
6" - Compound	1,570	to	1,630	6,020	to	6,120	7,590	to	7,750

*Note: Meter charge includes meter box or vault.

msj

Mydocs/slmcharg

NEW APPLICATION

FENNEMORE CRAIG
Norman D. James
Jay L. Shapiro
3003 N. Central Ave.
Suite 2600
Phoenix, Arizona 85012
Attorneys for Arizona-American
Water Company

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AZ CORP COMMISSION
DOCUMENT CONTROL

W-01303A-02-0896

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE
APPLICATION OF ARIZONA-
AMERICAN WATER COMPANY, AN
ARIZONA CORPORATION, FOR A
DETERMINATION OF THE CURRENT
FAIR VALUE OF ITS UTILITY PLANT
AND PROPERTY AND FOR INCREASES
IN ITS RATES AND CHARGES BASED
THEREON FOR UTILITY SERVICE BY
ITS TUBAC WATER DISTRICT

DOCKET NO. W-01303A-02-_____

SCHEDULES

**Arizona American - Tubac Valley Water
Index of Standard Filing Schedules**

Page 1

**Schedule
No.**

- | | |
|-----|--|
| A-1 | Summary of the increase in revenue requirement and the spread of the revenue increase by customer classification |
| A-2 | Summary of the results of operations for the test year and for the test year and the two fiscal years ended prior to the end of the test year, compared with the projected year. |
| A-3 | Summary of capital structure for the test year and two fiscal years ended prior to the end of the test year, compared to the projected year |
| A-4 | Construction expenditures and gross utility plant in service for the test year and the two fiscal years ended prior to the end of the test year, compared with the projected year. |
| A-5 | Summary of changes in financial position for the test year and the two fiscal years ended prior to the test year, compared to the projected year |
| B-1 | Schedule showing the elements of original cost and RCND rate bases. |
| B-2 | Schedule listing pro forma adjustments to gross plant in service and accumulated depreciation for the original cost rate base |
| B-3 | Schedule listing pro forma adjustments to gross plant in service and accumulated depreciation for the RCND rate base |
| B-4 | Schedule demonstrating the determination of reproduction cost new less accumulated depreciation for the RCND rate base |
| B-5 | Schedule showing the computation of working capital allowance. |
| C-1 | Test year income statement, with pro forma adjustments. |
| C-2 | Schedule showing the detail of all pro forma adjustments. |
| C-3 | Schedule showing the incremental taxes and other expenses on gross revenues and the computation of an incremental gross revenue conversion factor. |
| D-1 | Summary of Cost of Capital |
| D-2 | Schedule Showing the detail of long-term debt and short-term at the end of the test year and the projected year and their total cost. |
| D-3 | Schedule showing the detail of preferred stock at the end of the test year and the projected year, and their total cost. |
| D-4 | Schedule summarizing conclusions of the required return on common Equity |
| E-1 | Comparative balance sheets for the end of the test year and the two fiscal years ended prior to the end of the test year. |
| E-2 | Comparative income statements for the end of the test year and the two fiscal years ended prior to the end of the test year. |
| E-3 | Comparative statements of changes in financial position for the test year and the two fiscal years ended prior to the test year. |
| E-4 | Statement of changes in stockholder's equity for the test year and the two fiscal years ended prior to the test year. |
| E-5 | Comparative schedule showing by detail account number, utility plant balances at the end of the test year and the end of the prior fiscal year. |
| E-7 | Comparative operating statistics on customers, consumption, revenues, and expenses for the test year and the two fiscal years ending prior to the end of the test year. |

**Arizona American - Tubac Valley Water
Index of Standard Filing Schedules**

Page 2

**Schedule
No.**

E-8	Comparative schedule of all significant taxes charged to operations for the test year and the two fiscal years ended prior to the end of the test year.
E-9	Notes to Audited or Compiled Financial Statements
F-1	Projected income statements for the projected year compared with the test year, at present and proposed rates.
F-2	Projected changes in financial position for the projected year compared with the test year, at present and proposed rates
F-3	Projected annual construction requirements by property classification, for one year subsequent to the test year, compared with the test year.
F-4	Important assumption used in preparing forecasts and projections.
H-1	Comparison of revenues by customer classification or other classification of revenue for the test year, at present and proposed rates.
H-2	Comparison of revenues by class of service and by rate schedule for the test year at present and proposed rates
H-3	Present and proposed rates schedules.
H-4	Typical bill analysis.
H-5	Bill counts.

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Computation of Increase in Gross Revenue
Requirements As Adjusted

Exhibit
Schedule A-1
Page
Witness: Bourassa

Line
No.

1	Fair Value Rate base				\$ 1,903,764	
2						
3	Adjusted Operating Income				(15,123)	
4						
5	Current Rate of Return				-0.79%	
6						
7	Required Operating Income				\$ 147,501	
8						
9	Required Rate of Return on Fair Value Rate Base				7.75%	
10						
11	Operating Income Deficiency				\$ 162,625	
12						
13	Gross Revenue Conversion Factor				1.6286	
14						
15	Increase in Gross Revenue					
16	Requirement				\$ 264,857	
17						
18	Customer	Present	Proposed	Dollar	Percent	
19	<u>Classification</u>	<u>Rates</u>	<u>Rates</u>	<u>Increase</u>	<u>Increase</u>	
20	5/8 Inch Residential	\$ 192,378	\$ 395,204	\$ 202,825	105.43%	
21	1 Inch Residential	11,339	23,294	11,955	105.43%	
22	1.5 Inch Residential	1,501	3,083	1,582	105.42%	
23	2 Inch Residential	1,671	3,433	1,762	105.44%	
24	3 Inch Residential	1,255	2,578	1,323	105.47%	
25		-	-	-		
26	5/8 Inch Commercial	20,444	42,000	21,556	105.44%	
27	1 Inch Commercial	6,953	14,283	7,330	105.43%	
28	1.5 Inch Commercial	2,753	5,655	2,902	105.43%	
29	2 Inch Commercial	9,544	19,604	10,060	105.41%	
30	3 Inch Commercial	807	1,659	851	105.45%	
31	Miscellaneous Revenues	2,691	2,691	-	0.00%	
32						
33	Subtotal of Water Revenues	\$ 251,336	\$ 513,484	\$ 262,147	104.30%	
34						
35						
36	Revenue Annualization					
37	5/8 Inch Residential	\$ 738	\$ 1,515	\$ 778	105.44%	
38	1 Inch Residential	370	760	390	105.45%	
39	5/8 Inch Commercial	350	719	369	105.45%	
40	1 Inch Commercial	218	447	229	105.43%	
41	3 Inch Commercial	801	1,646	845	105.45%	
42	Total Revenue Annualization	2,476	5,087	2,611	105.44%	
43	Total Water Revenues with	-	-	-		
44	Revenue Annualization	\$ 253,812	\$ 518,570	\$ 264,758	104.31%	

SUPPORTING SCHEDULES:

B-1
C-1
C-3
H-1

51
52

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Summary of Capital Structure

Exhibit
Schedule A-3
Page 1
Witness: Bourassa

Line No.		Prior Years Ended			Test Year	Projected Year
	Description:	12/31/98	12/31/99	12/31/00	12/31/01	12/31/02
1						
2						
3	Long-Term Debt	-	-	-	1,439,003	1,439,003
4						
5	Total Debt	\$ -	\$ -	\$ -	\$ 1,439,003	\$ 1,439,003
6						
7						
8	Preferred Stock	-	-	-	-	-
9						
10	Common Equity	680,834	692,146	690,127	959,335	959,335
11						
12						
13	Total Capital & Debt	\$ 680,834	\$ 692,146	\$ 690,127	\$ 2,398,338	\$ 2,398,338
14						
15						
16	Capitalization Ratios:					
17						
18	Long-Term Debt	0.00%	0.00%	0.00%	60.00%	60.00%
19						
20	Total Debt	0.00%	0.00%	0.00%	60.00%	60.00%
21						
22						
23	Preferred Stock	-	-	-	-	-
24						
25	Common Equity	100.00%	100.00%	100.00%	40.00%	40.00%
26						
27						
28	Total Capital	100.00%	100.00%	100.00%	100.00%	100.00%
29						
30						
31	Weighted Cost of					
32	Senior Capital	0.00%	0.00%	0.00%	3.15%	3.15%
33						
34						
35						
36						
37						
38	<u>SUPPORTING SCHEDULES:</u>					
39	E-1					
40	D-1					

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Construction Expenditures
and Gross Utility Plant in Service

Exhibit
Schedule A-4
Page 1
Witness: Bourassa

Line No.		Construction Expenditures	Net Plant Placed in Service	Gross Utility Plant in Service (a)
1				
2	Prior Year Ended 12/31/1998	-		1,959,038
3				
4	Prior Year Ended 12/31/1999	24,567	13,330	1,972,368
5				
6	Prior Year Ended 12/31/2000	48,714	(47,919)	1,924,449
7				
8	Test Year Ended 12/31/2001	68,996	65,157	1,989,607
9				
10	Projected Year Ended 12/31/2002	467,313	467,313	2,456,920
11				
12	(a) Unadjusted			
13				
14				
15	<u>SUPPORTING SCHEDULES:</u>			
16	B-2			
17	E-5			
18	F-3			
19				
20				
21				
22				
23				
24				
25				
26				
27				

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Summary Statements of Cash Flows

Exhibit
Schedule A-5
Page 1
Witness: Bourassa

Line
No.

	Prior Year Ended <u>12/31/98</u>	Prior Year Ended <u>12/31/99</u>	Prior Year Ended <u>12/31/00</u>	Test Year Ended <u>12/31/01</u>	Projected Year Present Rates <u>12/31/02</u>	Projected Year Proposed Rates <u>12/31/02</u>
1						
2						
3						
4						
5	Cash Flows from Operating Activities					
6	\$ -	\$ 11,312	\$ (2,019)	\$ (92,942)	\$ (75,052)	\$ 116,482
7	Adjustments to reconcile net income to net cash					
8	provided by operating activities:					
9	-	58,582	58,582	52,617	37,208	37,208
10	-	(38,215)	(38,130)	(133)		
11	-	(21,153)	36,269	(944)		
12	Changes in Certain Assets and Liabilities:					
13	-	1,304	20,576	(23,735)		
14	-	-	-	-		
15	-	-	-	(1,546)		
16	-	62,508	657	1,098		
17	-	-	240	(77)		
18	-	(3,971)	9,557	(5,010)		
19	\$ -	\$ 70,367	\$ 85,732	\$ (70,672)	\$ (37,844)	\$ 153,690
20	Cash Flow From Investing Activities:					
21	-	(24,567)	(48,714)	(68,996)	(467,313)	(467,313)
22	-	-	-	-		
23	-	-	-	-		
24	\$ -	\$ (24,567)	\$ (48,714)	\$ (68,996)	\$ (467,313)	\$ (467,313)
25	Cash Flow From Financing Activities					
26	(Decrease) Increase in Net Amounts due to Parent and					
27	-	(40,401)	(76,138)	143,979		
28	-	543	(189)	(535)		
29	-	(17,341)	46,486	(3,776)		
30	-	11,399	(7,177)	-		
31	-	-	-	-		
32	-	-	-	-		
33	-	-	-	-	-	(87,361)
34	-	-	-	-		
35	-	-	-	-		
36	\$ -	\$ (45,800)	\$ (37,018)	\$ 139,668	\$ -	\$ (87,361)
37	-	-	-	-	(505,157)	(400,985)
38	-	-	-	-	-	-
39	\$ -	\$ -	\$ -	\$ -	\$ (505,157)	\$ (400,985)

40

41

42

43 SUPPORTING SCHEDULES:

44 E-3

45 F-2

46

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Summary of Fair Value Rate Base

Exhibit
Schedule B-1
Page 1
Witness: Bourassa

Line No.		Original Cost Rate base	RCND Rate base	Fair Value Rate base (RCND Only)
1				
2	Gross Utility Plant in Service	\$ 1,968,841	\$ 3,441,929	\$ 3,441,929
3	Less: Accumulated Depreciation	571,158	989,066	989,066
4				
5	Net Utility Plant in Service	\$ 1,397,683	\$ 2,452,863	\$ 2,452,863
6				
7	<u>Less:</u>			
8	Advances in Aid of			
9	Construction	170,081	297,336	297,336
10	Contributions in Aid of			
11	Construction - Net of amortization	143,675	251,172	251,172
12	Customer Meter Deposits	590	590	590
13	Deferred Income Taxes & Credits	-	-	-
14	Investment tax Credits	-	-	-
15	<u>Plus:</u>			
16	Unamortized Finance			
17	Charges	-	-	-
18	Deferred Tax Assets	-	-	-
19	Allowance for Working Capital	-	-	-
20	Citizens Acquisition Adjustment	531,184	-	-
21				
22	Total Rate Base	\$ 1,614,521	\$ 1,903,764	\$ 1,903,764

SUPPORTING SCHEDULES:

B-2
B-3
B-5
E-1

RECAP SCHEDULES:

A-1

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Original Cost Rate Base Proforma Adjustments

Exhibit
Schedule B-2
Page 1
Witness: Bourassa

Line No.		Actual at End of Test Year	Proforma Adjustments Label	Amount	Adjusted at end of Test Year
1	Gross Utility				
2	Plant in Service	\$ 1,981,996	(1)	1,673	\$ 1,968,841
3			(2)	44,500	
4	Less:		(6)	-	
5			(8)	5,617	
6	Accumulated		(9)	(64,945)	
7	Depreciation	551,582	(3)	28,906	571,158
8			(9)	(9,330)	
9	Net Utility Plant				
10	in Service	\$ 1,430,414			\$ 1,397,683
11					
12	Less:				
13	Advances in Aid of				
14	Construction (Ratemaking Purposes Only)	\$ 179,091	(4)	(58)	\$ 170,081
15	Contributions in Aid of		(5)	(8,952)	
16	Construction - Net (Ratemaking	134,973	(4)	(250)	143,675
17	Purposes Only)		(5)	8,952	
18	Customer Meter Deposits	590			590
19	Deferred Income Taxes	-			-
20	Investment Tax Credits	-			-
21	Plus:				
22	Unamortized Finance				
23	Charges	-			-
24	Deferred Tax Assets	-			-
25	Working capital	-			-
26	Citizens Acquisition Adjustment	-	(7)	531,184	531,184
27					
28	Total	\$ 1,115,760			\$ 1,614,521
29					
30					
31	(1) Additional Plant at Closing				
32	(2) Plant to be completed by 12/31/2002.				
33	(3) Additional Accumulated Depreciation at Closing				
34	(4) Increase (decrease) AIAC and CIAC to amount at Closing.				
35	(5) Adjust AIAC and CIAC for Ratemaking Purposes				
36	(6) Intentionally Left Blank				
37	(7) Acquisition Adjustment Premium				
38	(8) Orcom Costs				
39	(9) Well not in service				
40	<u>SUPPORTING SCHEDULES:</u>				<u>RECAP SCHEDULES:</u>
41	B-2				B-1
42	E-1				

Arizona American - Tubac Valley
Plant Summary with Common Plant Allocation
at December 31, 2001

Exhibit
Schedule B-2
Page 2
Witness: Bourassa

Line No.	Account No.	Description	Original Cost	Accumulated Depreciation
1		Intangible		
2	301.00	Organization	\$ 567	\$ -
3	302.00	Franchises	2,030	-
4	303.00	Miscellaneous Intangibles	-	-
5		Subtotal Intangible	\$ 2,597	\$ -
6				
7		Source of Supply		
8	310.00	Land and Land Rights	\$ 20,414	\$ -
9	311.00	Structures and Improvements	19,992	4,183
10	312.00	Collecting and Impounding Res.	-	-
11	313.00	Lales, Rivers, Other Intakes	-	-
12	314.00	Wells and Springs	179,355	75,173
13		Subtotal Source of Supply	\$ 219,761	\$ 79,356
14				
15		Pumping		
16	320.00	Land and Land Rights	\$ -	\$ -
17	321.00	Structures and Improvements	14,608	7,906
18	323.00	Other Power Production	-	-
19	325.00	Electric Pumping Equipment	241,749	102,255
20	326.00	Diesel Pumping Equipment	879	88
21	328.10	Gas Engine Pumping Equipment	42,995	10,466
22		Subtotal Pumping	\$ 300,231	\$ 120,714
23				
24		Water Treatment		
25	330.00	Land and Land Rights	\$ 50	\$ -
26	331.00	Structures and Improvements	-	-
27	332.00	Water Treatment Equipment	505	104
28		Subtotal Water Treatment	\$ 555	\$ 104
29				
30		Transmission and Distribution		
31	340.00	Land and Land Rights	\$ 539	\$ -
32	341.00	Structures and Improvements	156	70
33	342.00	Distribution, Reservoirs, & ST	142,420	28,084
34	343.00	Transmission and Distribution	884,097	236,291
35	344.00	Fire Mains	-	-
36	345.00	Services	272,942	55,162
37	346.00	Meters	87,950	21,151
38	348.00	Hydrants	24,189	1,366
39	349.00	Other Transmission & Distribution	-	-
40		Subtotal Transmission and Distribution	\$ 1,412,294	\$ 342,124
41				
42		ALLOCATED COMMON PLANT	\$ 48,394	\$ 9,696
43				
44				
45				
46		ADFUC adjustment 3/95 *	(1,835)	(413)
47		TOTAL WATER PLANT	\$ 1,981,996	\$ 551,582

SUPPORTING SCHEDULES

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Arizona American - Tubac Valley
Common Plant Allocation
at December 31, 2002

Exhibit
Schedule B-2
Page 3
Witness: Bourassa

Line	Account		Original Cost	Accumulated Depreciation	Allocation Factor	Allocated Original Cost	Allocated Accumulated Depreciation
No.	No.	Description					
1							
2		Maricopa Common Plant					
3	389.00	Land and Land Rights	\$ 4,880	\$ -	0.00530	\$ 26	\$ -
4	390.00	Structures and Improvements	3,349,189	310,963	0.00530	17,767	1,650
5	391.00	Office Furniture and Equipment	997,650	360,503	0.00530	5,293	1,912
6	391.10	Computer Equipment	1,428,345	(434,702)	0.00530	7,577	(2,306)
7	392.00	Transportation Equipment	1,797,409	1,038,162	0.00530	9,535	5,507
8	393.00	Stores Equipment	28,727	7,782	0.00530	152	41
9	394.00	Tools, Shop and Garage	411,051	18,237	0.00530	2,181	97
10	395.00	Laboratory Equipment	130,207	22,954	0.00530	691	122
11	396.00	Power Operated Equipment	120,325	42,813	0.00530	638	227
12	397.00	Communication Equipment	577,488	332,600	0.00530	3,064	1,764
13	398.00	Miscellaneous Equipment	277,101	128,455	0.00530	1,470	681
14							
15							
16							
17							
18							
19		TOTALCOMMON PLANT	<u>\$ 9,122,373</u>	<u>\$ 1,827,766</u>		<u>\$ 48,394</u>	<u>\$ 9,696</u>
20							
21							
22		<u>SUPPORTING SCHEDULES</u>					
23		B-2, Page 4					
24							
25							
26							

Arizona American - Maricopa
Common Plant Allocation Basis
at December 31, 2001

Exhibit
Schedule B-2
Page 4
Witness: Bourassa

Line No.	<u>Location</u>	Year End Customer <u>Count</u>	<u>Factor</u>
1			
2	Sun City Water	22,195	0.23835
3	Sun City Sewer	21,144	0.22706
4	Sun City West Water	15,581	0.16732
5	Sun City West WasteWater	14,889	0.15989
6	Agua Fria	13,004	0.13965
7	CWS Water (Anthem)	3,225	0.03463
8	CWR Water (Anthem)	44	0.00047
9	CWS Wastewater (Anthem)	2,542	0.02730
10	CWR Wastewater (Anthem)	2	0.00002
11	Tubac Valley	494	0.00530
12	TOTAL CUSTOMER COUNT	93,120	1.00000
13			
14			
15			

Arizona American - Tubac Valley
Plant Summary
at December 31, 2001

Exhibit
Schedule B-2
Page 5
Witness: Bourassa

Line No.	Account No.	Description	Original Cost	Accumulated Depreciation
1		Intangible		
2	301.00	Organization	\$ 567	\$ -
3	302.00	Franchises	2,030	-
4	303.00	Miscellaneous Intangibles	-	-
5		Subtotal Intangible	\$ 2,597	\$ -
6				
7		Source of Supply		
8	310.00	Land and Land Rights	\$ 20,414	\$ -
9	311.00	Structures and Improvements	19,992	4,183
10	312.00	Collecting and Impounding Res.	-	-
11	313.00	Lakes, Rivers, Other Intakes	-	-
12	314.00	Wells and Springs	179,355	75,173
13		Subtotal Source of Supply	\$ 219,761	\$ 79,356
14				
15		Pumping		
16	320.00	Land and Land Rights	\$ -	\$ -
17	321.00	Structures and Improvements	14,608	7,906
18	323.00	Other Power Production	-	-
19	325.00	Electric Pumping Equipment	241,749	102,255
20	326.00	Diesel Pumping Equipment	879	88
21	328.10	Gas Engine Pumping Equipment	42,995	10,466
22		Subtotal Pumping	\$ 300,231	\$ 120,714
23				
24		Water Treatment		
25	330.00	Land and Land Rights	\$ 50	\$ -
26	331.00	Structures and Improvements	-	-
27	332.00	Water Treatment Equipment	505	104
28		Subtotal Water Treatment	\$ 555	\$ 104
29				
30		Transmission and Distribution		
31	340.00	Land and Land Rights	\$ 539	\$ -
32	341.00	Structures and Improvements	156	70
33	342.00	Distribution, Reservoirs, & ST	142,420	28,084
34	343.00	Transmission and Distribution	884,097	236,291
35	344.00	Fire Mains	-	-
36	345.00	Services	272,942	55,162
37	346.00	Meters	87,950	21,151
38	348.00	Hydrants	24,189	1,366
39	349.00	Other Transmission & Distribution	-	-
40		Subtotal Transmission and Distribution	\$ 1,412,294	\$ 342,124
41				
42		General		
43	389.00	Land and Land Rights	\$ 2,755	\$ -
44	390.00	Structures and Improvements	498	78
45	391.00	Office Furniture and Equipment	11,451	2,029
46	391.10	Computer Equipment	9,435	6,583
47	392.00	Transportation Equipment	17,166	13,302
48	393.00	Stores Equipment	3,418	1,044
49	394.00	Tools, Shop and Garage	8,161	1,162
50	395.00	Laboratory Equipment	-	-
51	396.00	Power Operated Equipment	-	-
52	397.00	Communication Equipment	2,462	822
53	398.00	Miscellaneous Equipment	659	134
54		Subtotal General	\$ 56,004	\$ 25,156
55				
56				
57				
58		ADFUC adjustment 3/95 *	(1,835)	(413)
59		TOTAL WATER PLANT	\$ 1,989,607	\$ 567,042
60				
61				
62		* AFUDC Accumulated Depreciation		
63		AFUDC Adjustment	\$ 1,835	
64		Years	6.75	
65		Composite Rate	2.42%	
66		Total		300
67		Plus A/D @ 3/95 per Staff		113
68		Total A/D at 12/2001		\$ 413
69				
70		Trended Cost (Trend Factor from 1995)	1.2061	\$ 2,213
71				

SUPPORTING SCHEDULES
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Arizona American - Tubac Valley Water
Plant Additions and Retirements
Source: Plant In Service Summary

Exhibit
Schedule B-2
Page 6a
Witness: Bourassa

Line No.	Account No.	Description	Staff Plant At 3/31/95	1995 Net Plant Additions	1995 Plant Balance	1996 Net Plant Additions	1996 Plant Balance
1		Intangible					
4	301.00	Organization	567	-	567	-	567
5	302.00	Franchises	2,033	-	2,033	-	2,033
6	303.00	Miscellaneous Intangibles	-	-	-	-	-
7		Subtotal Intangible	2,600	-	2,600	-	2,600
9		Source of Supply					
10	310.00	Land and Land Rights	11,317	-	11,317	9,424	20,741
11	311.00	Structures and Improvements	5,181	-	5,181	-	5,181
12	312.00	Collecting and Impounding Res.	-	-	-	-	-
13	313.00	Lakes, Rivers, Other Intakes	-	-	-	-	-
14	314.00	Wells and Springs	121,061	(1,624)	119,437	57,856	177,293
15		Subtotal Source of Supply	137,559	(1,624)	135,935	67,280	203,215
17		Pumping					
18	320.00	Land and Land Rights	50	(50)	-	-	-
19	321.00	Structures and Improvements	13,792	-	13,792	-	13,792
20	323.00	Other Power Production	-	-	-	-	-
21	325.00	Electric Pumping Equipment	145,545	12,056	157,601	605	158,206
22	326.00	Diesel Pumping Equipment	-	-	-	-	-
23	328.10	Gas Engine Pumping Equipment	24,004	4,354	28,358	-	28,358
24		Subtotal Pumping	183,391	16,359	199,750	605	200,355
26		Water Treatment					
27	330.00	Land and Land Rights	50	-	50	-	50
28	331.00	Structures and Improvements	-	-	-	-	-
29	332.00	Water Treatment Equipment	-	-	-	-	-
30		Subtotal Water Treatment	50	-	50	-	50
32		Transmission and Distribution					
33	340.00	Land and Land Rights	539	-	539	-	539
34	341.00	Structures and Improvements	156	-	156	-	156
35	342.00	Distribution, Reservoirs, & ST	143,216	235	143,451	-	143,451
36	343.00	Transmission and Distribution	583,090	75,535	658,625	41,623	700,249
37	344.00	Fire Mains	-	-	-	-	-
38	345.00	Services	119,954	30,184	150,138	18,379	168,517
39	346.00	Meters	78,739	1,323	80,062	1,850	81,913
40	348.00	Hydrants	14,639	396	15,035	2,625	17,660
41	349.00	Other Transmission & Distribution	-	-	-	-	-
42		Subtotal Transmission and Distribution	940,333	107,674	1,048,007	64,478	1,112,485
44		General					
45	389.00	Land and Land Rights	2,755	-	2,755	-	2,755
46	390.00	Structures and Improvements	-	-	-	498	498
47	391.00	Office Furniture and Equipment	1,616	1,543	3,159	6,151	9,310
48	391.10	Computer Equipment	-	-	-	-	-
49	392.00	Transportation Equipment	21,462	-	21,462	-	21,462
50	393.00	Stores Equipment	3,431	0	3,431	-	3,431
51	394.00	Tools, Shop and Garage	7,378	-	7,378	265	7,643
52	395.00	Laboratory Equipment	-	-	-	-	-
53	396.00	Power Operated Equipment	-	-	-	-	-
54	397.00	Communication Equipment	1,426	450	1,876	400	2,276
55	398.00	Miscellaneous Equipment	-	-	-	-	-
56		Subtotal General	38,068	1,993	40,061	7,314	47,375
60		ADFUC adjustment 3/95	(1,835)		(1,835)		(1,835)
61		TOTAL WATER PLANT	1,300,166	124,402	1,424,568	139,676	1,564,244

Arizona American - Tubac Valley Water
Plant Additions and Retirements
Source: Plant In Service Summary

Exhibit
Schedule B-2
Page 6b
Witness: Bourassa

Line No.	Account No.	Description	1997 Net Plant Additions	1997 Plant Balance	1998 Net Plant Additions	1998 Plant Balance	1999 Net Plant Additions	1999 Plant Balance
1								
2		Intangible						
3								
4	301.00	Organization	-	567	-	567	-	567
5	302.00	Franchises	(8)	2,025	5	2,030	-	2,030
6	303.00	Miscellaneous Intangibles	-	-	-	-	-	-
7		Subtotal Intangible	(8)	2,592	5	2,597	-	2,597
8								
9		Source of Supply						
10	310.00	Land and Land Rights	-	20,741	(327)	20,414	-	20,414
11	311.00	Structures and Improvements	14,886	20,067	(75)	19,992	-	19,992
12	312.00	Collecting and Impounding Res.	-	-	-	-	-	-
13	313.00	Lakes, Rivers, Other Intakes	-	-	-	-	-	-
14	314.00	Wells and Springs	3,175	180,468	(537)	179,931	-	179,931
15		Subtotal Source of Supply	18,061	221,275	(939)	220,336	-	220,336
16								
17		Pumping						
18	320.00	Land and Land Rights	-	-	-	-	-	-
19	321.00	Structures and Improvements	816	14,608	-	14,608	-	14,608
20	323.00	Other Power Production	-	-	-	-	-	-
21	325.00	Electric Pumping Equipment	66,733	224,939	17,156	242,095	2,546	244,642
22	326.00	Diesel Pumping Equipment	-	-	-	-	879	879
23	328.10	Gas Engine Pumping Equipment	5,432	33,790	9,205	42,995	-	42,995
24		Subtotal Pumping	72,982	273,337	26,361	299,698	3,425	303,124
25								
26		Water Treatment						
27	330.00	Land and Land Rights	-	50	-	50	-	50
28	331.00	Structures and Improvements	-	-	-	-	-	-
29	332.00	Water Treatment Equipment	505	505	-	505	-	505
30		Subtotal Water Treatment	505	555	-	555	-	555
31								
32		Transmission and Distribution						
33	340.00	Land and Land Rights	-	539	-	539	-	539
34	341.00	Structures and Improvements	-	156	-	156	-	156
35	342.00	Distribution, Reservoirs, & ST	(1,382)	142,069	(20,502)	121,567	-	121,567
36	343.00	Transmission and Distribution	143,869	844,118	52,701	896,819	1,356	898,175
37	344.00	Fire Mains	-	-	-	-	-	-
38	345.00	Services	19,281	187,798	15,661	203,459	5,780	209,239
39	346.00	Meters	3,816	85,728	1,629	87,357	-	87,357
40	348.00	Hydrants	(463)	17,197	6,992	24,189	-	24,189
41	349.00	Other Transmission & Distribution	-	-	-	-	-	-
42		Subtotal Transmission and Distribution	165,121	1,277,606	56,480	1,334,086	7,136	1,341,222
43								
44		General						
45	389.00	Land and Land Rights	-	2,755	-	2,755	-	2,755
46	390.00	Structures and Improvements	-	498	-	498	-	498
47	391.00	Office Furniture and Equipment	(641)	8,669	2,783	11,451	-	11,451
48	391.10	Computer Equipment	4,484	4,484	3,655	8,139	2,770	10,909
49	392.00	Transportation Equipment	26,518	47,980	17,044	65,024	-	65,024
50	393.00	Stores Equipment	(34)	3,397	21	3,418	-	3,418
51	394.00	Tools, Shop and Garage	433	8,076	1,119	9,195	-	9,195
52	395.00	Laboratory Equipment	-	-	-	-	-	-
53	396.00	Power Operated Equipment	-	-	-	-	-	-
54	397.00	Communication Equipment	175	2,451	10	2,461	-	2,461
55	398.00	Miscellaneous Equipment	659	659	-	659	-	659
56		Subtotal General	31,594	78,968	24,632	103,600	2,770	106,369
57								
58								
59								
60		ADFUC adjustment 3/95	-	(1,835)	-	(1,835)	-	(1,835)
61		TOTAL WATER PLANT	288,254	1,852,498	106,539	1,959,038	13,330	1,972,368

Arizona American - Tubac Valley Water
Plant Additions and Retirements
Source: Plant In Service Summary

Exhibit
Schedule B-2
Page 6c
Witness: Bourassa

Line No.	Account No.	Description	2000 Net Plant Additions	2000 Plant Balance	2001 Net Plant Additions	2001 Plant Balance
1		Intangible				
2						
3						
4	301.00	Organization	-	567	-	567
5	302.00	Franchises	-	2,030	-	2,030
6	303.00	Miscellaneous Intangibles	-	-	-	-
7		Subtotal Intangible	-	2,597	-	2,597
8						
9		Source of Supply				
10	310.00	Land and Land Rights	-	20,414	-	20,414
11	311.00	Structures and Improvements	-	19,992	-	19,992
12	312.00	Collecting and Impounding Res.	-	-	-	-
13	313.00	Lakes, Rivers, Other Intakes	-	-	-	-
14	314.00	Wells and Springs	(576)	179,355	(0)	179,355
15		Subtotal Source of Supply	(576)	219,761	(0)	219,761
16						
17		Pumping				
18	320.00	Land and Land Rights	-	-	-	-
19	321.00	Structures and Improvements	-	14,608	-	14,608
20	323.00	Other Power Production	-	-	-	-
21	325.00	Electric Pumping Equipment	(3,516)	241,125	624	241,749
22	326.00	Diesel Pumping Equipment	-	879	-	879
23	328.10	Gas Engine Pumping Equipment	-	42,995	-	42,995
24		Subtotal Pumping	(3,516)	299,607	624	300,231
25						
26		Water Treatment				
27	330.00	Land and Land Rights	-	50	-	50
28	331.00	Structures and Improvements	-	-	-	-
29	332.00	Water Treatment Equipment	-	505	-	505
30		Subtotal Water Treatment	-	555	-	555
31						
32		Transmission and Distribution				
33	340.00	Land and Land Rights	-	539	-	539
34	341.00	Structures and Improvements	-	156	-	156
35	342.00	Distribution, Reservoirs, & ST	-	121,567	20,853	142,420
36	343.00	Transmission and Distribution	4,862	903,036	(18,939)	884,097
37	344.00	Fire Mains	-	-	-	-
38	345.00	Services	3,110	212,349	60,593	272,942
39	346.00	Meters	(1,432)	85,925	2,025	87,950
40	348.00	Hydrants	-	24,189	-	24,189
41	349.00	Other Transmission & Distribution	-	-	-	-
42		Subtotal Transmission and Distribution	6,540	1,347,762	64,532	1,412,294
43						
44		General				
45	389.00	Land and Land Rights	-	2,755	-	2,755
46	390.00	Structures and Improvements	-	498	-	498
47	391.00	Office Furniture and Equipment	-	11,451	-	11,451
48	391.10	Computer Equipment	(1,474)	9,435	-	9,435
49	392.00	Transportation Equipment	(47,858)	17,166	-	17,166
50	393.00	Stores Equipment	-	3,418	-	3,418
51	394.00	Tools, Shop and Garage	(1,034)	8,161	-	8,161
52	395.00	Laboratory Equipment	-	-	-	-
53	396.00	Power Operated Equipment	-	-	-	-
54	397.00	Communication Equipment	-	2,461	1	2,462
55	398.00	Miscellaneous Equipment	-	659	-	659
56		Subtotal General	(50,366)	56,003	1	56,004
57						
58						
59						
60		ADFUC adjustment 3/95		(1,835)		(1,835)
61		TOTAL WATER PLANT	(47,919)	1,924,449	65,157	1,989,607

Arizona American
Acquisition Adjustment Allocation Factors
at December 31, 2001

Exhibit
Schedule B-2
Page 7
Witness: Bourassa

Line
No.

1	Citizens Acquisition Adjustment per Closing	\$	71,224,550		
2	Plus: Organizational Costs		912,534		
3	Less: Sun City Sewer (Tolleson Trickling Filter)		500,000		
4	Citizens Acquisition Adjustment	\$	71,637,084		
5					
6					
7					
8	<u>Description</u>	<u>Original Cost (2)</u>	<u>Allocation Factor</u>	<u>Allocated Amount</u>	
9					
10	Sun City Water	\$ 36,367,124	0.136055	\$ 9,746,553	
11	Sun City Wastewater	19,643,850	0.073490	5,264,640	
12	Sun City West Water	30,464,605	0.113972	8,164,652	
13	Sun City West WasteWater	38,810,451	0.145195	10,401,376	
14	Agua Fria (1)	49,647,296	0.185738	13,305,699	
15	CWS Water (Anthem)	6,227,303	0.023297	1,668,945	
16	CWR Water (Anthem)	34,987,898	0.130895	9,376,914	
17	CWS Wastewater (Anthem)	17,004,194	0.063615	4,557,201	
18	CWR Wastewater (Anthem)	5,887,108	0.022025	1,577,772	
19	Tubac Valley	1,981,996	0.007415	531,184	
20	Mohave Sewer (Sorenson)	1,480,997	0.005541	396,914	
21	Mohave Water	22,842,642	0.085458	6,121,931	
22	Havasus Water	1,952,588	0.007305	523,302	
23	Totals	\$ 267,298,052	1.000000	\$ 71,637,084	
24					
25	(1) Adjusted for Post Close Plant Adjustments of	\$ 4,128,730			
26	(2) After Common Plant Adjustments				
27					
28	<u>SUPPORTING SCHEDULES</u>				
29	B2, Page 1 (Agua Fria Post Close Plant Adjustments)				
30	B2, Page2				
31					

Arizona American - Tubac Valley Water
Plant Additions and Retirements
Source: Asset Transactions, AWW UPIS Report, Asset Balance Report
2001 Reconciliation to AWW UPIS Report at Closing
PROFORMA ADJUSTMENTS

Exhibit
Schedule B-2
Page 8
Witness: Bourassa

Account No.	Description	Balance Per AWW UPIS at Closing	Balance Per ACC Report	Additional Plant at Closing	AWW UPIS Accumulated Depreciation	ACC Report Accumulated Depreciation	Accumulated Depreciation
Intangible							
301.00	Organization	567	567	-	-	-	-
302.00	Franchises	2,030	2,030	-	-	-	-
303.00	Miscellaneous Intangibles	-	-	-	-	-	-
	Subtotal Intangible	2,597	2,597	-	-	-	-
Source of Supply							
310.00	Land and Land Rights	20,414	20,414	-	-	-	-
311.00	Structures and Improvements	19,992	19,992	-	4,423	4,183	240
312.00	Collecting and Impounding Res.	-	-	-	-	-	-
313.00	Lakes, Rivers, Other Intakes	-	-	-	-	-	-
314.00	Wells and Springs	180,979	179,355	1,624	79,583	75,173	4,410
	Subtotal Source of Supply	221,385	219,761	1,624	84,006	79,356	4,650
Pumping							
320.00	Land and Land Rights	50	-	50	-	-	-
321.00	Structures and Improvements	14,608	14,608	-	8,048	7,906	142
323.00	Other Power Production	-	-	-	-	-	-
325.00	Electric Pumping Equipment	241,749	241,749	-	107,377	102,255	5,123
326.00	Diesel Pumping Equipment	879	879	-	88	88	-
328.10	Gas Engine Pumping Equipment	42,995	42,995	-	11,377	10,466	911
	Subtotal Pumping	300,281	300,231	50	126,890	120,714	6,175
Water Treatment							
330.00	Land and Land Rights	50	50	-	-	-	-
331.00	Structures and Improvements	-	-	-	-	-	-
332.00	Water Treatment Equipment	505	505	-	114	104	10
	Subtotal Water Treatment	555	555	-	114	104	10
Transmission and Distribution							
340.00	Land and Land Rights	539	539	-	-	-	-
341.00	Structures and Improvements	156	156	-	71	70	1
342.00	Distribution, Reservoirs, & ST	142,420	142,420	-	29,237	28,084	1,153
343.00	Transmission and Distribution	884,097	884,097	-	244,995	236,291	8,704
344.00	Fire Mains	-	-	-	-	-	-
345.00	Services	272,942	272,942	-	58,504	55,162	3,342
346.00	Meters	87,950	87,950	-	22,214	21,151	1,063
348.00	Hydrants	24,189	24,189	-	1,604	1,366	238
349.00	Other Transmission & Distribution	-	-	-	-	-	-
	Subtotal Transmission and Distribution	1,412,294	1,412,294	-	356,626	342,124	14,502
General							
389.00	Land and Land Rights	2,755	2,755	-	-	-	-
390.00	Structures and Improvements	498	498	-	85	78	7
391.00	Office Furniture and Equipment	11,451	11,451	-	2,216	2,029	188
391.10	Computer Equipment	9,435	9,435	-	7,526	6,583	943
392.00	Transportation Equipment	17,166	17,166	-	15,447	13,302	2,145
393.00	Stores Equipment	3,418	3,418	-	1,112	1,044	68
394.00	Tools, Shop and Garage	8,161	8,161	-	1,302	1,162	139
395.00	Laboratory Equipment	-	-	-	-	-	-
396.00	Power Operated Equipment	-	-	-	-	-	-
397.00	Communication Equipment	2,461	2,462	(1)	885	822	62
398.00	Miscellaneous Equipment	659	659	-	151	134	16
	Subtotal General	56,003	56,004	(1)	28,725	25,156	3,569
TOTAL WATER PLANT		1,993,115	1,991,442	1,673	596,360	567,454	28,906

Arizona American - Tubac Valley Water
2002 Proforma Plant
at December 31, 2001

Exhibit
Schedule B-2
Page 9
Witness: Bourassa

Line	Account		
No.	No.	Description	Amount
1			
2	301	Organization	\$ -
3	302	Franchises	-
4	303	Land and Land Rights	-
5	304	Structures and Improvements	500
6	305	Collecting and Impounding Rese	-
7	306	Lake, River and Other Intakes	-
8	307	Wells and Springs	-
9	308	Infiltration Galleries and Tun	-
10	309	Supply Mains	-
11	310	Power Generation Equipment	-
12	311	Pumping Equipment	2,450
13	320	Water Treatment Equipment	-
14	330	Distribution Reservoirs and St	-
15	331	Transmission and Distribution	37,050
16	333	Services	-
17	334	Meters and Meter Installations	-
18	335	Hydrants	-
19	336	Backflow Prevention Devices	-
20	339	Other Plant and Miscellaneous	-
21	340	Office Furniture and Equipment	3,800
22	341	Transportation Equipment	-
23	342	Stores Equipment	-
24	343	Tools, Shop and Garage Equipme	-
25	344	Laboratory Equipment	-
26	345	Power Operated Equipment	-
27	346	Communication Equipment	700
28	347	Miscellaneous Equipment	-
29	348	Other Tangible Plant	-
30			
31			
32			
33		TOTAL WASTEWATER PLANT	<u>\$ 44,500</u>
34			
35		<u>SUPPORTING SCHEDULES</u>	
36			
37			
38			
39			
40			

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
RCND Rate Base Proforma Adjustments

Exhibit
Schedule B-3
Page 1
Witness: Bourassa

Line No.		Actual at End of Test Year	Proforma Label	Adjustment: Amount	Adjusted at end of Test Year
1	Gross Utility				
2	Plant in Service	\$ 3,468,980	(1)	1,673	\$ 3,441,929
3			(2)	44,500	
4	Less:		(6)	-	
5			(7)	2,762	
6	Accumulated		(8)	(75,986)	
7	Depreciation	971,077	(3)	28,906	989,066
8			(8)	(10,916)	
9	Net Utility Plant				
10	in Service	\$ 2,497,903			\$ 2,452,863
11					
12	Less:				
13	Advances in Aid of				
14	Construction (Ratemaking Purposes Only)	\$ 313,087	(4)	(101)	\$ 297,336
15	Contributions in Aid of		(5)	(15,649)	
16	Construction - Net (Ratemaking	235,960	(4)	(437)	251,172
17	Purposes Only)		(5)	15,649	
18	Customer Meter Deposits	590			590
19	Deferred Income Taxes	-			-
20	Investment Tax Credits	-			-
21	Plus:				
22	Unamortized Finance				
23	Charges	-			-
24	Deferred Tax Assets	-			-
25	Working capital	-			-
26					
27	Total	\$ 1,948,266			\$ 1,903,764
28					
29					
30					
31	(1) Additional Plant at Closing				
32	(2) Plant to be completed by 12/31/2002.				
33	(3) Additional Accumulated Depreciation at Closing				
34	(4) Increase (decrease) AIAC and CIAC to amount at Closing (Trended)				
35	(5) Adjust AIAC and CIAC for Ratemaking Purposes				
36	(6) Intentionally Left Blank				
37	(7) Orcom Costs				
38	(8) Well not in service				
39	<u>SUPPORTING SCHEDULES:</u>				<u>RECAP SCHEDULES:</u>
40	B-4				B-1
41					

Arizona American - Tubac Valley
RCND Plant Summary with Common Plant Allocation
at December 31, 2001

Exhibit
Schedule B-4
Page 1
Witness: Bourassa

Line No.	Account No.	Description	Trended Reproduction Cost New	Accumulated Depreciation
1		Intangible		
2	301.00	Organization	\$ 1,688	\$ -
3	302.00	Franchises	4,842	-
4	303.00	Miscellaneous Intangibles	-	-
5		Subtotal Intangible	\$ 6,529	\$ -
6				
7		Source of Supply		
8	310.00	Land and Land Rights	\$ 29,470	\$ -
9	311.00	Structures and Improvements	29,900	6,257
10	312.00	Collecting and Impounding Res.	-	-
11	313.00	Lales, Rivers, Other Intakes	-	-
12	314.00	Wells and Springs	289,950	121,527
13		Subtotal Source of Supply	\$ 349,320	\$ 127,783
14				
15		Pumping		
16	320.00	Land and Land Rights	\$ 150	\$ -
17	321.00	Structures and Improvements	59,034	31,950
18	323.00	Other Power Production	-	-
19	325.00	Electric Pumping Equipment	353,602	149,566
20	326.00	Diesel Pumping Equipment	970	97
21	328.10	Gas Engine Pumping Equipment	52,349	12,743
22		Subtotal Pumping	\$ 466,106	\$ 194,356
23				
24		Water Treatment		
25	330.00	Land and Land Rights	\$ 150	\$ -
26	331.00	Structures and Improvements	-	-
27	332.00	Water Treatment Equipment	579	119
28		Subtotal Water Treatment	\$ 729	\$ 119
29				
30		Transmission and Distribution		
31	340.00	Land and Land Rights	\$ 1,348	\$ -
32	341.00	Structures and Improvements	793	355
33	342.00	Distribution, Reservoirs, & ST	222,668	43,907
34	343.00	Transmission and Distribution	1,764,096	471,488
35	344.00	Fire Mains	-	-
36	345.00	Services	433,766	87,666
37	346.00	Meters	129,451	31,132
38	348.00	Hydrants	36,009	2,033
39	349.00	Other Transmission & Distribution	-	-
40		Subtotal Transmission and Distribution	\$ 2,588,131	\$ 636,580
41				
42		ALLOCATED COMMON PLANT	\$ 60,378	\$ 12,737
43				
44				
45				
46		ADFUC adjustment 3/95 *	(2,213)	(498)
47		TOTAL WATER PLANT	\$ 3,468,980	\$ 971,077

SUPPORTING SCHEDULES

B-4, Page 2

B-4, Page 3

Arizona American - Tubac Valley
RCND Common Plant Allocation
at December 31, 2002

Exhibit
Schedule B-4
Page 2
Witness: Bourassa

Line No.	Account No.	Description	Trended Amount	Accumulated Depreciation	Allocation Factor	Allocated Trended Amount	Allocated Accumulated Depreciation
1							
2		Maricopa Common Plant					
3	389.00	Land and Land Rights	\$ 12,628	\$ -	0.00530	\$ 67	\$ -
4	390.00	Structures and Improvements	4,545,571	506,059	0.00530	24,114	2,685
5	391.00	Office Furniture and Equipment	1,286,955	502,142	0.00530	6,827	2,664
6	391.10	Computer Equipment	1,588,744	(483,558)	0.00530	8,428	(2,565)
7	392.00	Transportation Equipment	1,988,785	1,155,595	0.00530	10,550	6,130
8	393.00	Stores Equipment	37,463	10,952	0.00530	199	58
9	394.00	Tools, Shop and Garage	523,808	14,105	0.00530	2,779	75
10	395.00	Laboratory Equipment	150,719	27,352	0.00530	800	145
11	396.00	Power Operated Equipment	154,364	56,063	0.00530	819	297
12	397.00	Communication Equipment	697,864	415,524	0.00530	3,702	2,204
13	398.00	Miscellaneous Equipment	394,470	196,632	0.00530	2,093	1,043
14							
15							
16							
17							
18							
19		TOTALCOMMON PLANT	\$ 11,381,370	\$ 2,400,866		\$ 60,378	\$ 12,737

SUPPORTING SCHEDULES
B-2, Page 4

28

Arizona American - Tubac Valley
RCND Plant Summary
at December 31, 2001

Exhibit
Schedule B-4
Page 3
Witness: Bourassa

Line No.	Account No.	Description	Trended Reproduction Cost New	Accumulated Depreciation
1		Intangible		
2	301.00	Organization	\$ 1,688	\$ -
3	302.00	Franchises	4,842	-
4	303.00	Miscellaneous Intangibles	-	-
5		Subtotal Intangible	\$ 6,529	\$ -
6				
7		Source of Supply		
8	310.00	Land and Land Rights	\$ 29,470	\$ -
9	311.00	Structures and Improvements	29,900	6,257
10	312.00	Collecting and Impounding Res.	-	-
11	313.00	Lakes, Rivers, Other Intakes	-	-
12	314.00	Wells and Springs	289,950	121,527
13		Subtotal Source of Supply	\$ 349,320	\$ 127,783
14				
15		Pumping		
16	320.00	Land and Land Rights	\$ 150	\$ -
17	321.00	Structures and Improvements	59,034	31,950
18	323.00	Other Power Production	-	-
19	325.00	Electric Pumping Equipment	353,602	149,566
20	326.00	Diesel Pumping Equipment	970	97
21	328.10	Gas Engine Pumping Equipment	52,349	12,743
22		Subtotal Pumping	\$ 466,106	\$ 194,356
23				
24		Water Treatment		
25	330.00	Land and Land Rights	\$ 150	\$ -
26	331.00	Structures and Improvements	-	-
27	332.00	Water Treatment Equipment	579	119
28		Subtotal Water Treatment	\$ 729	\$ 119
29				
30		Transmission and Distribution		
31	340.00	Land and Land Rights	\$ 1,348	\$ -
32	341.00	Structures and Improvements	793	355
33	342.00	Distribution, Reservoirs, & ST	222,668	43,907
34	343.00	Transmission and Distribution	1,764,096	471,488
35	344.00	Fire Mains	-	-
36	345.00	Services	433,766	87,666
37	346.00	Meters	129,451	31,132
38	348.00	Hydrants	36,009	2,033
39	349.00	Other Transmission & Distribution	-	-
40		Subtotal Transmission and Distribution	\$ 2,588,131	\$ 636,580
41				
42		General		
43	389.00	Land and Land Rights	\$ 3,748	\$ -
44	390.00	Structures and Improvements	594	93
45	391.00	Office Furniture and Equipment	13,226	2,343
46	391.10	Computer Equipment	10,852	7,572
47	392.00	Transportation Equipment	19,318	14,970
48	393.00	Stores Equipment	4,300	1,314
49	394.00	Tools, Shop and Garage	10,195	1,452
50	395.00	Laboratory Equipment	-	-
51	396.00	Power Operated Equipment	-	-
52	397.00	Communication Equipment	3,011	1,006
53	398.00	Miscellaneous Equipment	756	154
54		Subtotal General	\$ 66,000	\$ 28,904
55				
56				
57				
58		AFUDC adjustment 3/95 *	(2,213)	(498)
59		TOTAL WATER PLANT	\$ 3,474,602	\$ 987,245
60				
61				
62		* AFUDC Accumulated Depreciation		
63		AFUDC Adjustment	\$ 1,835	
64		Years	6.75	
65		Composite Rate	2.42%	
66		Total		300
67		Plus A/D @ 3/95 per Staff		113
68		Total A/D at 12/2001		\$ 413
69				
70		Trended Cost (Trend Factor from 1995)	1.2061	\$ 2,213
71				

SUPPORTING SCHEDULES
B-2, Page 6a-6c

10/11/2002

RCN Asset Listing
Plant at 12/31/2001Exhibit
Schedule B-4
Page 4 - 1
Witness: Bourassa

Company Code: 4002		Business Area: 4503		Tubac Valley Water		
Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost
Asset Class: W30100 Organization						
1680787	ORGANIZATION	1	19740701	543.00	3.0003	1,629.16
1680823	ORGANIZATION	1	19770701	24.00	2.4372	58.49
Total for class W30100:				567.00		1,687.65
Asset Class: W30200 Franchises						
1680824	FRANCHISES & CON	1	19740701	1,324.00	3.0003	3,972.40
1681117	FRANCHISES & CON	1	19941215	706.00	1.2315	869.44
Total for class W30200:				2,030.00		4,841.84
Asset Class: W31000 Land and Land Rights						
1680908	Interest, Privil	1	19740701	212.00	3.0003	636.06
1680971	INTEREST PRIVILE	1	19810101	2,730.00	1.7464	4,767.67
1681001	PARCEL EACH	1	19840101	7,689.00	1.6028	12,323.93
1681002	INTEREST PRIVILE	1	19840101	686.00	1.6028	1,099.52
1681192	PARCEL EACH	1	19960715	9,096.68	1.1700	10,643.12
Total for class W31000:				20,413.68		29,470.30
Asset Class: W31100 Structures and Improvements						
1680821	Structures & Imp	1	19670701	747.00	5.5710	4,161.54
1680829	Structures & Imp	1	19680701	354.00	5.3191	1,882.96
1680865	FENCE EACH	1	19700701	106.00	4.6795	496.03
1681003	GRADING EACH LOT	1	19840317	2,507.00	1.6028	4,018.22
1681004	FENCE EACH	132	19840317	1,023.00	1.6028	1,639.66
1681005	GATE ONLY	1	19840317	444.00	1.6028	711.64
1681228	THERMOSTAT	1	19970315	3,583.11	1.1471	4,110.19
1681230	FOUNDATION	1	19970315	3,199.19	1.1471	3,669.79
1681231	GRADING	2	19970315	7,155.04	1.1471	8,207.55
1681229	MINOR STRUCTURE	1	19971215	873.75	1.1471	1,002.28
Total for class W31100:				19,992.09		29,899.86
Asset Class: W31400 Wells and Springs						
1680788	WELL EACH	0	19590701	617.00	6.1576	3,799.24
1680789	WELL EACH	1	19590701	1,007.00	6.1576	6,200.70
1680810	WELL EACH	1	19650701	2,176.00	5.8514	12,732.65
1680825	WELL EACH	1	19670701	2,862.00	5.5710	15,944.20
1681007	CASING EACH	402	19840317	82,420.00	1.6028	132,102.78

10/11/2002

RCN Asset Listing
Plant at 12/31/2001Exhibit
Schedule B-4
Page 4 - 2
Witness: Bourassa

Company Code: 4002	Business Area: 4503	Tubac Valley Water			
Main	Description	Qty	Acquisition Date	Original Cost	Factor
Asset Class: W31400	Wells and Springs				RCN Cost
1681008	COLLECTING PIPE	42	19840317	8,396.00	1.6028
1681009	MANHOLE EACH	1	19840317	10,610.00	1.6028
1681011	WELL EACH	1	19840317	3,583.00	1.6028
1681071	CASING EACH	0	19900415	9,008.00	1.3930
1681193	WELL	2	19960715	55,848.86	1.1700
1681232	AIR PRESSURE GAU	16	19971215	775.11	1.1471
1681233	CASING	4	19971215	2,205.65	1.1471
1681298	3 1/2" PRESSURE	4	19981215	376.68	1.1250
1681299	VALVE	1	19981215	1,093.50	1.1250
Total for class W31400:				180,978.80	289,949.72
Asset Class: W32000	Land and Land Rights				
1680909	Interest, Privil	1	19740701	50.00	3.0003
Total for class W32000:				50.00	150.02
Asset Class: W32100	Structures and Improvements				
1680822	Pump	1	19670701	8,112.00	5.5710
1680830	Pump	1	19680701	42.00	5.3191
1680866	FENCE EACH	294	19700701	1,185.00	4.6795
1681006	WALL EACH	1	19840317	4,453.00	1.6028
1681227	CABINET	2	19971215	816.39	1.1471
Total for class W32100:				14,608.39	59,034.31
Asset Class: W32500	Electric Pumping Equipment				
1680818	Pump	1	19670701	2,851.00	5.5710
1680832	Pump	5	19690701	607.00	4.8757
1680834	STARTER MOTOR	2	19690701	253.00	4.8757
1680835	TANK EACH	1	19690701	2,145.00	4.8757
1680836	PUMP&MTR SUBMERS	1	19690701	210.00	4.8757
1680904	Pump	1	19730701	2,403.00	3.4412
1680910	Pump	1	19740701	622.00	3.0003
1680917	METER EACH	2	19750701	1,300.00	2.6589
1680931	AUTO. CNTRL. APP	2	19770701	514.00	2.4372
1680932	COMPLETE MOTOR	1	19770701	18.00	2.4372
1680933	PUMP EACH	1	19770701	880.00	2.4372
1680956	PUMP EACH	1	19790701	5,095.00	2.0525

10/11/2002

RCN Asset Listing
Plant at 12/31/2001

Exhibit
Schedule B-4
Page 4 - 3
Witness: Bourassa

Company Code: 4002		Business Area: 4503		Tubac Valley Water			
Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost	
Asset Class: W32500 Electric Pumping Equipment							
1680957	TRANSFORMER EACH	1	19790701	568.00	2.0525	1,165.82	
1680959	MOTOR 20HP	1	19790701	1,414.00	2.0525	2,902.24	
1680984	PUMP&MTR SUBMERS	1	19820101	940.00	1.7206	1,617.36	
1681012	AIR COMPRESSOR	1	19840317	157.00	1.6028	251.64	
1681013	ELECTRICAL PANEL	1	19840317	4,804.00	1.6028	7,699.85	
1681014	TANK FOUNDATION	1	19840317	784.00	1.6028	1,256.60	
1681015	PUMPING EQUIP PR	1	19840317	2,668.00	1.6028	4,276.27	
1681016	PUMP EACH	1	19840317	16,773.00	1.6028	26,883.76	
1681017	TANK EACH	1	19840317	12,842.00	1.6028	20,583.16	
1681024	ELECTRICAL PANEL	1	19850510	5,998.00	1.5394	9,233.32	
1681025	PUMP AND MOTOR	1	19850510	12,141.00	1.5394	18,689.86	
1681026	PUMP BOWLS EACH	1	19850510	4,755.00	1.5394	7,319.85	
1681072	AIR COMPRESSOR	1	19900115	751.67	1.3930	1,047.08	
1681073	PUMP BOWLS EACH	1	19900115	7,854.05	1.3930	10,940.69	
1681137	TANK FOUNDATION	1	19940615	1,822.73	1.2580	2,292.99	
1681139	PIPING OVER 3IN	25	19940615	27,389.72	1.2580	34,456.27	
1681142	VALVE	2	19940615	5,602.83	1.2580	7,048.36	
1681149	PUMP&MTR SUBMERS	2	19940615	10,993.93	1.2580	13,830.36	
1681118	PHASE FAILURE RE	1	19941015	1,327.00	1.2315	1,634.20	
1681141	COLUMN/SHAFT ASS	5	19950115	15,446.48	1.2061	18,630.00	
1681144	PHASE FAILURE RE	0	19950115	174.01	1.2061	209.87	
1681136	CONTROL	3	19951215	817.97	1.1939	976.57	
1681140	PIPING 3 IN AND	1	19951215	490.34	1.1939	585.42	
1681143	VALVE	3	19951215	724.24	1.1939	864.67	
1681194	GAUGE	3	19961215	646.84	1.1700	756.80	
1681237	AIR RELEASE VALV	1	19970115	921.66	1.1471	1,057.24	
1681238	AIR VACUUM AND A	7	19970115	710.75	1.1471	815.30	
1681248	VALVE	1	19970115	520.09	1.1471	596.60	
1681234	CONDUCTOR	50	19970315	2,171.18	1.1471	2,490.56	
1681235	CONDUIT, EACH RU	50	19970315	2,605.41	1.1471	2,988.67	
1681236	GENERATOR	1	19970315	30,974.04	1.1471	35,530.32	
1681240	AUTO. CNTRL. APP	2	19970315	13,231.42	1.1471	15,177.76	
1681244	PIPING OVER 3IN	20	19970315	2,605.42	1.1471	2,988.68	
1681249	VALVE	1	19970315	8,684.81	1.1471	9,962.35	
1681243	PUMPING EQUIP PR	2	19971215	355.85	1.1471	408.20	

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Company Code: 4002		Business Area: 4503		Tubac Valley Water		
Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost
Asset Class: W32500 Electric Pumping Equipment						
1681246	PIPING 3 IN AND	1	19971215	284.37	1.1471	326.20
1681247	REGULATING OR RE	3	19971215	1,898.48	1.1471	2,177.75
1681252	MOTOR 5HP	2	19971215	1,409.59	1.1471	1,616.94
1681303	AUTO DIALNG TELE	1	19980515	14,940.25	1.1360	16,972.12
1681300	AIR RELEASE VALV	2	19981215	642.67	1.1250	723.00
1681301	MERCOIDE SWITCH	1	19981215	265.61	1.1250	298.81
1681304	CAPACITORS	2	19981215	598.51	1.1250	673.32
1681305	MOTOR 5HP	1	19981215	975.17	1.1250	1,097.07
1784570	RADIO UNIT	0	19990115	103.96	1.1038	114.75
1784571	AUTO DIALNG TELE	0	19990415	1,828.09	1.1038	2,017.85
3058001	MOTOR 5 HP	1	19991231	1,238.06	1.1038	1,366.57
Total for class W32500:				241,749.20		353,602.15
Asset Class: W32600 Diesel Pumping Equipment						
3058002	COOLING SYSTEM	1	19991231	878.83	1.1038	970.05
Total for class W32600:				878.83		970.05
Asset Class: W32800						
1681138	PUMP FOUNDATION	1	19940615	905.66	1.2580	1,139.32
1681145	BATTERY CHARGER	1	19940615	1,916.05	1.2580	2,410.39
1681146	MUFFLER	1	19940615	661.67	1.2580	832.38
1681147	PUMP	1	19940615	5,109.46	1.2580	6,427.70
1681148	DIESEL ENGINE	1	19940615	19,628.47	1.2580	24,692.62
1681241	DRIVE UNIT OR CO	1	19971215	3,246.57	1.1471	3,724.14
1681242	PUMPING EQUIP PR	1	19971215	881.92	1.1471	1,011.65
1681245	PIPING 3 IN AND	0	19971215	216.01	1.1471	247.79
1681250	VALVE	1	19971215	1,431.01	1.1471	1,641.51
1681302	DIESEL ENGINE	2	19980615	8,997.77	1.1360	10,221.47
Total for class W32800:				42,994.59		52,348.97
Asset Class: W33000 Land and Land Rights						
1680911	Interest, Privil	1	19740701	50.00	3.0003	150.02
Total for class W33000:				50.00		150.02

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Company Code: 4002		Business Area: 4503		Tubac Valley Water		
Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost
Asset Class: W33200 Water Treatment Equipment						
1681253	SOLUTION FEED EQ	1	19970115	504.89	1.1471	579.16
Total for class W33200:				504.89		579.16
Asset Class: W34000 Land and Land Rights						
1680882	WATER LEVEL INDI	1	19740701	117.00	3.0003	351.04
1680912	Interest, Privil	0	19740701	212.00	3.0003	636.06
1680983	INTEREST PRIVILE	1	19820101	210.00	1.7206	361.33
Total for class W34000:				539.00		1,348.43
Asset Class: W34100 Structures and Improvements						
1680831	SIGN	3	19680701	72.00	5.3191	382.98
1680833	YARD IMPROVEMENT	1	19690701	84.00	4.8757	409.56
Total for class W34100:				156.00		792.54
Asset Class: W34200 Distribution, Reservoirs, & ST						
1680790	SUMP PUMP	1	19590701	570.00	6.1576	3,509.83
1680819	Reservoir	1	19670701	5,193.00	5.5710	28,930.20
1680960	AIR COMPRESSOR	1	19790701	116.00	2.0525	238.09
1680961	WATER LEVEL INDI	1	19790701	95.00	2.0525	194.99
1681074	STANDPIPE OR ELE	1	19900315	134,407.00	1.3930	187,228.95
1681150	2000 GAL PRESSUR	1	19940615	2,039.31	1.2580	2,565.45
Total for class W34200:				142,420.31		222,667.51
Asset Class: W34300 Transmission and Distribution						
1680791	CAST IRON MAINS	3200	19590701	7,737.00	6.1576	47,641.35
1680792	CAST IRON MAINS	3330	19590701	9,735.00	6.1576	59,944.24
1680793	CAST IRON MAINS	566	19590701	2,524.00	6.1576	15,541.78
1680794	STEEL MAINS 4INC	129	19590701	366.00	6.1576	2,253.68
1680799	CAST IRON MAINS	300	19600701	802.00	6.1576	4,938.40
1680800	GAL IRN MNS 1IN	348	19600701	451.00	6.1576	2,777.08
1680801	CAST IRON MAINS	200	19610701	219.00	6.1576	1,348.51
1680802	ASB CEM MAINS 4I	1296	19610701	2,342.76	6.1576	14,425.78
1680803	GAL IRN MNS 2IN	84	19610701	18.00	6.1576	110.84
1680804	VALVE GATE EACH	1	19610701	136.00	6.1576	837.43
1680808	TRANSITE 2 INCHE	930	19640701	1,246.00	5.8514	7,290.84
1680811	PIPE, VAL, FIT FOR	0	19660701	786.00	5.5710	4,378.81

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Asset Class: W34300 Transmission and Distribution						
1680812	ASB CEM MAINS 4I	2625	19660701	3,199.56	5.5710	17,824.75
1680813	ASB CEM MAINS 6I	4825	19660701	8,791.00	5.5710	48,974.66
1680814	VALVE GATE EACH	5	19660701	162.00	5.5710	902.50
1680815	VALVE GATE EACH	5	19660701	558.00	5.5710	3,108.62
1680816	VALVE GATE EACH	5	19660701	578.00	5.5710	3,220.04
1680817	VALVE GATE EACH	4	19660701	715.00	5.5710	3,983.27
1680827	Mains	1	19680701	2,484.00	5.3191	13,212.64
1680837	AIR VACUUM&AIR R	2	19690701	143.00	4.8757	697.23
1680838	BLOW-OFF EACH	2	19690701	90.00	4.8757	438.81
1680839	BLOW-OFF EACH	1	19690701	42.00	4.8757	204.78
1680840	PIPE, VAL, FIT FOR	0	19690701	232.00	4.8757	1,131.16
1680841	PIPE, VAL, FIT FOR	300	19690701	975.00	4.8757	4,753.81
1680842	PIPE, VAL, FIT FOR	0	19690701	471.00	4.8757	2,296.45
1680843	PIPE, VAL, FIT FOR	70	19690701	1,214.00	4.8757	5,919.10
1680844	PIPE, VAL, FIT FOR	0	19690701	492.00	4.8757	2,398.84
1680845	CONDUIT OR FLUME	300	19690701	2,274.00	4.8757	11,087.34
1680846	STEEL CASING PIP	70	19690701	474.00	4.8757	2,311.08
1680847	ASB CEM MAINS 4I	894	19690701	1,873.00	4.8757	9,132.19
1680848	ASB CEM MAINS 6I	1278	19690701	3,465.16	4.8757	16,895.08
1680849	ASB CEM MAINS 6I	1698	19690701	4,656.00	4.8757	22,701.26
1680850	ASB CEM MAINS 6I	340	19690701	801.00	4.8757	3,905.44
1680851	ASB CEM MAINS 6I	2000	19690701	4,872.00	4.8757	23,754.41
1680852	ASB CEM MAINS 8I	2015	19690701	7,092.00	4.8757	34,578.46
1680853	VALVE GATE EACH	4	19690701	356.00	4.8757	1,735.75
1680854	VALVE GATE EACH	1	19690701	136.00	4.8757	663.10
1680855	VALVE GATE EACH	8	19690701	1,040.00	4.8757	5,070.73
1680856	VALVE GATE EACH	2	19690701	269.00	4.8757	1,311.56
1680857	VALVE GATE EACH	2	19690701	252.00	4.8757	1,228.68
1680858	VALVE GATE EACH	9294	19690701	710.00	4.8757	3,461.75
1680863	Mains	7676	19700701	365.00	4.6795	1,708.02
1680867	BLOW-OFF EACH	1	19700701	17.00	4.6795	79.55
1680868	PIPE, VAL, FIT FOR	0	19700701	501.00	4.6795	2,344.43
1680869	PIPE, VAL, FIT FOR	0	19700701	360.00	4.6795	1,684.62
1680871	ASB CEM MAINS 4I	3168	19700701	6,950.00	4.6795	32,522.53
1680872	ASB CEM MAINS 6I	2045	19700701	4,839.00	4.6795	22,644.10

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Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost	
Asset Class: W34300 Transmission and Distribution							
1680873	ASB CEM MAINS 6I	2445	19700701	6,000.00	4.6795	28,077.00	
1680874	VALVE GATE EACH	3	19700701	376.00	4.6795	1,759.49	
1680875	VALVE GATE EACH	7	19700701	731.00	4.6795	3,420.71	
1680876	VALVE GATE EACH	8	19700701	1,217.00	4.6795	5,694.95	
1680878	COPPER SERVICES	0	19700701	304.00	4.6795	1,422.57	
1680883	Mains	3877	19710701	3,172.00	4.1789	13,255.47	
1680886	BLOW-OFF EACH	1	19710701	21.00	4.1789	87.76	
1680887	PIPE, VAL, FIT FOR	0	19710701	571.00	4.1789	2,386.15	
1680888	CAST IRON MAINS	0	19710701	643.00	4.1789	2,687.03	
1680889	ASB CEM MAINS 4I	46	19710701	106.00	4.1789	442.96	
1680890	ASB CEM MAINS 6I	3148	19710701	8,995.00	4.1789	37,589.21	
1680891	ASB CEM MAINS 6I	671	19710701	1,930.00	4.1789	8,065.28	
1680892	VALVE GATE EACH	3	19710701	317.00	4.1789	1,324.71	
1680893	VALVE GATE EACH	8	19710701	1,058.00	4.1789	4,421.28	
1680894	VALVE GATE EACH	1	19710701	133.00	4.1789	555.79	
1680901	Mains	1	19720701	297.00	3.7736	1,120.76	
1680905	Mains	1	19730701	6,633.00	3.4412	22,825.48	
1680913	Mains	1	19740701	28,233.00	3.0003	84,707.47	
1680916	Mains	1	19750701	231.00	2.6589	614.21	
1680918	BLOW-OFF EACH	8	19750701	874.00	2.6589	2,323.88	
1680919	ASB CEM MAINS 4I	2740	19750701	11,599.00	2.6589	30,840.58	
1680920	ASB CEM MAINS 6I	5443	19750701	24,557.00	2.6589	65,294.61	
1680921	VALVE GATE EACH	6	19750701	903.00	2.6589	2,400.99	
1680922	VALVE GATE EACH	14	19750701	2,729.00	2.6589	7,256.14	
1680925	BLOW-OFF EACH	1	19760701	110.00	2.6001	286.01	
1680926	ASB CEM MAINS 4I	2280	19760701	10,120.00	2.6001	26,313.01	
1680927	VALVE GATE EACH	1	19760701	132.00	2.6001	343.21	
1680934	BLOW-OFF EACH	1	19770701	92.00	2.4372	224.22	
1680935	STEEL CASING PIP	221	19770701	1,972.00	2.4372	4,806.16	
1680936	CAST IRON MAINS	60	19770701	555.00	2.4372	1,352.65	
1680937	ASB CEM MAINS 4I	1716	19770701	9,562.00	2.4372	23,304.51	
1680938	ASB CEM MAINS 6I	1	19770701	212.00	2.4372	516.69	
1680939	ASB CEM MAINS 6I	1249	19770701	9,218.00	2.4372	22,466.11	
1680940	ASB CEM MAINS 8I	10	19770701	380.00	2.4372	926.14	
1680941	STEEL MAINS 6INC	522	19770701	14,203.00	2.4372	34,615.55	

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Company Code: 4002		Business Area: 4503		Tubac Valley Water		
Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost
Asset Class: W34300 Transmission and Distribution						
1680942	STEEL MAINS 8INC	70	19770701	2,786.00	2.4372	6,790.04
1680943	VALVE GATE EACH	4	19770701	506.00	2.4372	1,233.22
1680944	VALVE GATE EACH	2	19770701	360.00	2.4372	877.39
1680949	ABC CEM MAINS 3I	299	19780701	1,416.00	2.2502	3,186.28
1680950	ASB CEM MAINS 4I	1	19780701	36.00	2.2502	81.01
1680951	VALVE GATE EACH	1	19780701	152.00	2.2502	342.03
1680962	ASB CEM MAINS 4I	1	19790701	455.00	2.0525	933.89
1680965	BLOW-OFF EACH	1	19800701	59.00	1.8282	107.86
1680966	ASB CEM MAINS 4I	905	19800701	4,730.00	1.8282	8,647.39
1680967	VALVE BOX EACH	1	19800701	171.00	1.8282	312.62
1680972	BLOW-OFF EACH	1	19810101	218.00	1.7464	380.72
1680973	ASB CEM MAINS 4I	230	19810101	2,284.00	1.7464	3,988.78
1680974	ASB CEM MAINS 6I	782	19810101	5,550.00	1.7464	9,692.52
1680975	PVC PLS MNS 2IN	1533	19810101	2,452.80	1.7464	4,283.57
1680976	PVC PLS MNS 4IN	320	19810101	1,066.67	1.7464	1,862.83
1680977	PVC PLS MNS 6IN	6534	19810101	11,857.54	1.7464	20,708.01
1680978	VALVE GATE EACH	3	19810101	230.00	1.7464	401.67
1680979	VALVE GATE EACH	4	19810101	869.00	1.7464	1,517.62
1680985	ASB CEM MAINS 8I	3018	19820101	40,418.00	1.7206	69,543.21
1680986	STEEL MAINS 8INC	80	19820101	1,410.00	1.7206	2,426.05
1680987	VALVE GATE EACH	3	19820101	1,483.00	1.7206	2,551.65
1680988	VALVE BUTTERFLY	1	19820101	44.00	1.7206	75.71
1680989	TAP SLVE AND VAL	1	19820101	2,843.00	1.7206	4,891.67
1680998	VALVE GATE EACH	1	19830101	11.00	1.6480	18.13
1680999	VALVE GATE EACH	1	19830101	22.00	1.6480	36.26
1681000	METER EACH SIZE	1	19830101	894.00	1.6480	1,473.31
1681019	VALVE GATE EACH	1	19840317	769.00	1.6028	1,232.55
1681020	VALVE GATE EACH	1	19840317	1,330.00	1.6028	2,131.72
1681027	PIPING WITHIN RE	1	19850510	137.00	1.5394	210.90
1681032	ASB CEM MAINS 4I	725	19860510	6,539.00	1.5195	9,936.01
1681033	ASB CEM MAINS 6I	4770	19860510	47,390.00	1.5195	72,009.11
1681034	VALVE GATE EACH	3	19860510	825.00	1.5195	1,253.59
1681035	VALVE GATE EACH	7	19860510	2,483.00	1.5195	3,772.92
1681037	TAP SLVE AND VAL	2	19860510	1,445.00	1.5195	2,195.68
1681038	COPPER SERVICES	1	19860510	206.00	1.5195	313.02

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Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost
Asset Class:	W34300 Transmission and Distribution					
1681039	COPPER SERVICES	11	19860510	2,649.00	1.5195	4,025.16
1681062	PVC PLS MNS 6IN	2160	19891215	19,432.01	1.3930	27,068.79
1681063	VALVE GATE EACH	1	19891215	775.29	1.3930	1,079.98
1681076	VALVE CHECK EACH	1	19900115	303.28	1.3930	422.47
1681075	PVC PLS MNS 6IN	780	19900315	26,155.00	1.3930	36,433.92
1681092	DUCTILE IRON MN	0	19921215	4,134.00	1.3448	5,559.40
1681093	ABC CEM MAINS 3 I	0	19921215	588.75	1.3448	791.75
1681094	PVC PLS MNS 8IN	0	19921215	588.75	1.3448	791.75
1681105	PVC PLS MNS 4IN	591	19930615	25,406.58	1.3146	33,399.49
1681106	TAP SLVE AND VAL	1	19930615	1,730.08	1.3146	2,274.36
1681151	BLOW-OFF EACH	2	19940115	874.73	1.2580	1,100.41
1681157	PVC PLASTIC MAIN	6560	19940115	64,943.44	1.2580	81,698.85
1681163	VALVE GATE - 6IN	6	19940115	2,341.60	1.2580	2,945.73
1681168	VALVE BOX	7	19940115	471.01	1.2580	592.53
1681170	TAP SLVE AND VAL	1	19940115	2,624.22	1.2580	3,301.27
1681161	PVC PLASTIC MAIN	1000	19940615	32,529.67	1.2580	40,922.32
1681164	VALVE GATE - 6IN	1	19940615	586.77	1.2580	738.16
1681167	VALVE GATE - 8IN	2	19940615	1,519.73	1.2580	1,911.82
1681152	BLOW-OFF EACH	1	19951215	344.45	1.1939	411.24
1681153	BLOW-OFF EACH	1	19951215	370.24	1.1939	442.03
1681155	BLOW-OFF EACH	1	19951215	869.15	1.1939	1,037.68
1681156	PVC PLASTIC MAIN	710	19951215	18,633.85	1.1939	22,246.95
1681158	PVC PLASTIC MAIN	165	19951215	6,424.48	1.1939	7,670.19
1681160	PVC PLASTIC MAIN	920	19951215	33,410.40	1.1939	39,888.68
1681162	VALVE GATE - 4IN	1	19951215	286.31	1.1939	341.83
1681165	VALVE GATE - 6IN	1	19951215	1,426.00	1.1939	1,702.50
1681166	VALVE GATE - 6IN	2	19951215	1,719.00	1.1939	2,052.31
1681169	VALVE BOX	1	19951215	58.23	1.1939	69.52
1681171	TAP SLVE AND VAL	1	19951215	1,939.89	1.1939	2,316.03
1681182	COPPER SERVICE 1	3	19951215	2,607.49	1.1939	3,113.08
1681199	PVC PLASTIC MAIN	0	19960315	17,743.13	1.1818	20,968.83
1681201	VALVE GATE - 3IN	0	19960315	624.71	1.1818	738.28
1681204	VALVE GATE - 6IN	1	19960315	2,308.20	1.1818	2,727.83
1681195	BLOW-OFF EACH	0	19960515	71.19	1.1818	84.13
1681196	PVC PLASTIC MAIN	96	19960615	1,857.23	1.1818	2,194.87

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Asset Class: W34300 Transmission and Distribution						
1681197	PVC PLASTIC MAIN	410	19960615	9,038.09	1.1818	10,681.21
1681202	VALVE GATE - 4IN	1	19960615	358.27	1.1818	423.40
1681203	VALVE GATE - 6IN	2	19960615	931.46	1.1818	1,100.80
1681206	VALVE BOX	3	19960615	214.95	1.1818	254.03
1681200	PVC PLASTIC MAIN	391	19961215	8,545.86	1.1700	9,998.66
1681205	VALVE GATE - 6IN	2	19961215	780.59	1.1700	913.29
1681254	AIR RELEASE VALV	4	19971215	2,750.47	1.1471	3,155.06
1681255	AIR RELEASE VALV	0	19971215	714.32	1.1471	819.40
1681256	BLOW-OFF EACH	1	19971215	136.09	1.1471	156.11
1681257	DUCTILE IRON MAI	900	19971215	56,874.45	1.1471	65,240.68
1681259	PVC PLASTIC MAIN	321	19971215	40,269.16	1.1471	46,192.75
1681260	PVC PLASTIC MAIN	10	19971215	3,882.28	1.1471	4,453.36
1681261	PVC PLASTIC MAIN	560	19971215	7,480.07	1.1471	8,580.39
1681262	PVC PLASTIC MAIN	1044	19971215	18,779.72	1.1471	21,542.22
1681263	VALVE GATE - 6IN	0	19971215	1,904.84	1.1471	2,185.04
1681264	VALVE GATE - 6IN	1	19971215	907.25	1.1471	1,040.71
1681265	VALVE GATE - 8IN	4	19971215	2,444.87	1.1471	2,804.51
1681266	VALVE BOX	5	19971215	764.02	1.1471	876.41
1681267	VALVE BOX	0	19971215	634.95	1.1471	728.35
1681268	VALVE BOX	8	19971215	751.92	1.1471	862.53
1681269	VALVE BOX	2	19971215	181.44	1.1471	208.13
1681270	TAP SLVE AND VAL	1	19971215	611.23	1.1471	701.14
1681272	COPPER SERVICE 3	4	19971215	4,736.95	1.1471	5,433.76
1681273	COPPER SERVICE 3	0	19971215	1,269.87	1.1471	1,456.67
1681258	DUCTILE IRON MAI	0	19980115	882.03	1.1360	1,001.99
1681307	BLOW-OFF EACH	2	19980515	870.12	1.1360	988.46
1681313	PVC PLASTIC MAIN	1038	19980515	13,247.47	1.1360	15,049.13
1681317	VALVE GATE - 6IN	3	19980515	1,903.37	1.1360	2,162.23
1681320	VALVE BOX	3	19980515	456.81	1.1360	518.94
1681314	PVC PLASTIC MAIN	803	19980615	17,964.61	1.1360	20,407.80
1681318	VALVE GATE - 8IN	1	19980615	775.17	1.1360	880.59
1681321	VALVE BOX	2	19980615	232.55	1.1360	264.18
1681324	TAP SLVE AND VAL	1	19980615	1,550.31	1.1360	1,761.15
1681306	BLOW-OFF EACH	1	19980715	219.62	1.1250	247.07
1681308	DUCTILE IRON MAI	420	19980715	5,711.89	1.1250	6,425.88

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Company Code: 4002 Business Area: 4503

Tubac Valley Water

Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost
Asset Class: W34300 Transmission and Distribution						
1681316	VALVE GATE - 6IN	1	19980715	867.49	1.1250	975.93
1681319	VALVE BOX	1	19980715	177.55	1.1250	199.74
1681309	ASBESTOS CEMENT	2	19981215	103.75	1.1250	116.72
1681310	ASBESTOS CEMENT	4	19981215	253.98	1.1250	285.73
1681311	ASBESTOS CEMENT	4	19981215	300.00	1.1250	337.50
1681312	PVC PLASTIC MAIN	10	19981215	2,632.72	1.1250	2,961.81
1681315	6" C900 CLASS 15	66	19981215	3,278.76	1.1250	3,688.61
1681323	TAP SLVE AND VAL	1	19981215	446.60	1.1250	502.43
1681333	2IN PVC SERVICE	2	19981215	87.29	1.1250	98.20
1784572	COPPER MAIN - 3/	2	19990115	1,687.94	1.1038	1,863.15
3084176	Blow Off	1	20000930	1,091.96	1.0354	1,130.62
3084177	4" C900 CL150 PV	68	20000930	5,195.95	1.0354	5,379.89
3084178	4" RW Gate Valve	1	20000930	1,153.78	1.0354	1,194.62
3084179	Valve Box	1	20000930	249.20	1.0354	258.02
3084180	Engineering	1	20000930	0.00	1.0354	0.00
Total for class W34300:				884,097.39		1,764,096.30
Asset Class: W34500 Services						
1680796	COPPER SERVICES	2	19590701	107.00	6.1576	658.86
1680806	Services	1	19620701	151.00	6.1576	929.80
1680807	Services	1	19630701	8.00	6.1576	49.26
1680809	Services	1	19650701	987.00	5.8514	5,775.33
1680820	Services	1	19670701	2,187.00	5.5710	12,183.78
1680828	Services	1	19680701	2,677.00	5.3191	14,239.23
1680859	COPPER SERVICES	0	19690701	1,050.00	4.8757	5,119.49
1680860	COPPER SERVICES	17	19690701	1,292.00	4.8757	6,299.40
1680861	COPPER SERVICES	12	19690701	1,183.00	4.8757	5,767.95
1680862	COPPER SERVICES	7	19690701	499.00	4.8757	2,432.97
1680864	Services	290	19700701	201.00	4.6795	940.58
1680870	PIPE, VAL, FIT FOR	2	19700701	85.00	4.6795	397.76
1680877	VALVE GATE EACH	19	19700701	1,729.00	4.6795	8,090.86
1680879	COPPER SERVICES	30	19700701	3,050.00	4.6795	14,272.48
1680880	COPPER SERVICES	240	19700701	1,435.00	4.6795	6,715.08
1680884	Services	95	19710701	1,210.00	4.1789	5,056.47
1680895	COPPER SERVICES	68	19710701	512.00	4.1789	2,139.60

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Company Code: 4002		Business Area: 4503		Tubac Valley Water		
Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost
Asset Class: W34500 Services						
1680896	COPPER SERVICES	0	19710701	230.00	4.1789	961.15
1680897	COPPER SERVICES	4	19710701	274.00	4.1789	1,145.02
1680898	COPPER SERVICES	21	19710701	1,310.00	4.1789	5,474.36
1680902	Services	1	19720701	2,978.00	3.7736	11,237.78
1680906	Services	1	19730701	1,517.00	3.4412	5,220.30
1680914	Services	1	19740701	3,291.00	3.0003	9,873.99
1680923	COPPER SERVICES	56	19750701	7,798.00	2.6589	20,734.10
1680928	COPPER SERVICES	247	19760701	2,084.00	2.6001	5,418.61
1680947	COPPER SERVICES	3	19770701	739.00	2.4372	1,801.09
1680952	COPPER SERVICES	2	19780701	900.00	2.2502	2,025.18
1680953	GALV STEEL SERV	1	19780701	2,641.00	2.2502	5,942.78
1680963	COPPER SERVICES	1	19790701	761.00	2.0525	1,561.95
1680968	COPPER SERVICES	1	19800701	1,168.00	1.8282	2,135.34
1680969	COPPER SERVICES	4	19800701	1,423.00	1.8282	2,601.53
1680970	GALV STEEL SERV	1	19800701	613.00	1.8282	1,120.69
1680980	PVC PLAS SERV EA	8	19810101	1,026.00	1.7464	1,791.81
1680990	COPPER SERVICES	1	19820101	325.00	1.7206	559.20
1680991	COPPER SERVICES	1	19820101	250.00	1.7206	430.15
1680992	COPPER SERV 4 IN	1	19820101	106.00	1.7206	182.38
1680993	PVC PLAS SERV EA	1	19820101	123.00	1.7206	211.63
1681021	6IN CEMENT ASBES	1	19840317	980.00	1.6028	1,570.74
1681044	PVC PLAS SERV EA	0	19871001	1,942.00	1.4810	2,876.10
1681051	ASBESTOS CEMENT	0	19880101	643.76	1.4624	941.43
1681052	PVC PLAS SERV EA	0	19881001	642.24	1.4267	916.28
1681053	PVC PLAS SERV EA	0	19881001	303.20	1.4267	432.58
1681064	COPPER SERVICES	0	19890615	1,129.00	1.4096	1,591.44
1681065	COPPER SERVICES	0	19891215	29.00	1.3930	40.40
1681077	COPPER SERVICES	0	19901215	579.00	1.3605	787.73
1681087	COPPER SERVICES	0	19910515	1,096.71	1.3765	1,509.62
1681088	POLYTHELENE SER	0	19910515	168.99	1.3765	232.61
1681095	COPPER SERVICES	139	19920415	11,822.20	1.3765	16,273.26
1681097	PVC PLAS SERV EA	0	19920415	100.37	1.3765	138.16
1681098	PVC PLAS SERV EA	0	19920415	86.43	1.3765	118.97
1681096	COPPER SERVICES	0	19921215	749.00	1.3448	1,007.26
1681099	ASBESTOS CEMENT	0	19921215	2,209.00	1.3448	2,970.66

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Company Code: 4002		Business Area: 4503		Tubac Valley Water			
Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost	
Asset Class: W34500 Services							
1681107	COPPER SERVICES	12	19930115	22,161.00	1.3146	29,132.85	
1681108	COPPER SERVICES	5	19930615	2,326.35	1.3146	3,058.22	
1681109	COPPER SERVICES	0	19931215	425.00	1.2857	546.42	
1681119	COPPER SERVICES	35	19940115	9,112.00	1.2580	11,462.90	
1681172	COPPER SERVICES	12	19940115	5,300.44	1.2580	6,667.95	
1681174	COPPER SERVICES	6	19940115	2,578.74	1.2580	3,244.05	
1681173	COPPER SERVICES	1	19940615	509.77	1.2580	641.29	
1681177	COPPER SERVICES	2	19940615	608.87	1.2580	765.96	
1681175	COPPER SERVICES	3	19950115	3,178.82	1.2061	3,833.97	
1681176	COPPER SERVICES	1	19950115	1,430.61	1.2061	1,725.46	
1681178	COPPER SERVICES	1	19951215	652.72	1.1939	779.28	
1681179	COPPER SERVICES	1	19951215	1,338.32	1.1939	1,597.82	
1681180	COPPER SERVICES	37	19951215	21,769.44	1.1939	25,990.53	
1681181	COPPER SERVICES	9	19951215	5,128.73	1.1939	6,123.19	
1681208	COPPER SERVICES	0	19960315	564.55	1.1818	667.19	
1681212	COPPER SERVICES	0	19960315	690.02	1.1818	815.47	
1681207	COPPER SERVICES	5	19960615	2,287.92	1.1818	2,703.86	
1681209	COPPER SERVICES	11	19961215	7,449.58	1.1700	8,716.01	
1681210	COPPER SERVICES	12	19961215	7,905.93	1.1700	9,249.94	
1681211	COPPER SERVICES	1	19961215	292.41	1.1700	342.12	
1681271	STEEL SERVICE BO	1	19971215	1,432.58	1.1471	1,643.31	
1681274	COPPER SERVICES	1	19971215	867.61	1.1471	995.24	
1681275	COPPER SERVICES	3	19971215	379.29	1.1471	435.08	
1681276	COPPER SERVICES	7	19971215	10,307.10	1.1471	11,823.27	
1681277	COPPER SERVICES	2	19971215	3,570.34	1.1471	4,095.54	
1681278	COPPER SERVICES	0	19971215	2,018.40	1.1471	2,315.31	
1681327	COPPER SERVICES	13	19980515	4,453.06	1.1360	5,058.68	
1681328	COPPER SERVICES	4	19980615	952.13	1.1360	1,081.62	
1681326	COPPER SERVICES	6	19980715	927.19	1.1250	1,043.09	
1681325	COPPER SERVICES	1	19981215	408.47	1.1250	459.53	
1681329	COPPER SERVICES	8	19981215	9,483.10	1.1250	10,668.49	
1681330	COPPER SERVICES	1	19981215	881.86	1.1250	992.09	
1681331	COPPER SERVICES	0	19981215	95.48	1.1250	107.42	
1681332	GALV STEEL SERV	0	19981215	914.86	1.1250	1,029.22	
3057775	3/4" COPPER SERV	5	19991231	6,897.67	1.1038	7,613.65	

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Company Code: 4002		Business Area: 4503		Tubac Valley Water			
Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost	
Asset Class: W34500 Services							
3057996	3/4" COPPER SERV	1	19991231	298.20	1.1038	329.15	
3084181	1" Copper Serv	2	20000930	1,168.18	1.0354	1,209.53	
3094117	REPL SHORT SIDE	5	20001231	3,434.02	1.0354	3,555.58	
3118597	INSTALL NEW WATE	108	20010731	5,975.22	1.0000	5,975.22	
3129403	Copper Services	4	20011031	49,777.16	1.0000	49,777.16	
3134941	Copper Services	1	20011130	2,588.10	1.0000	2,588.10	
Total for class W34500:				272,942.14		433,765.94	
Asset Class: W34600 Meters							
1680797	METER EACH SIZE	12	19590701	388.00	6.1576	2,389.15	
1680798	METER EACH SIZE	2	19590701	174.00	6.1576	1,071.42	
1680805	METER BOXES	0	19610701	43.00	6.1576	264.78	
1680885	Meter, 5/8 x 3/4	2	19710701	398.00	4.1789	1,663.20	
1680899	METER EACH SIZE	2	19710701	355.00	4.1789	1,483.51	
1680900	METER EACH SIZE	2	19710701	300.00	4.1789	1,253.67	
1680903	Meter, 5/8 x 3/4	1	19720701	69.00	3.7736	260.38	
1680907	Meter, 5/8 x 3/4	1	19730701	1,302.00	3.4412	4,480.44	
1680915	Meter, 5/8 x 3/4	1	19740701	214.00	3.0003	642.06	
1680930	Meter, 5/8 x 3/4	1	19770701	172.00	2.4372	419.20	
1680955	METER EACH SIZE	1	19780701	197.00	2.2502	443.29	
1680964	METER VAULT EACH	8	19790701	443.00	2.0525	909.26	
1680982	METER VAULT EACH	29	19810101	1,995.00	1.7464	3,484.07	
1680994	METER EACH SIZE	32	19820101	1,276.00	1.7206	2,195.49	
1680995	METER VAULT EACH	27	19820101	355.00	1.7206	610.81	
1681022	METER EACH SIZE	32	19840317	1,329.00	1.6028	2,130.12	
1681023	METER BOXES	12	19840317	191.00	1.6028	306.13	
1681029	METER EACH SIZE	48	19850510	2,065.00	1.5394	3,178.86	
1681030	METER EACH SIZE	1	19850510	327.00	1.5394	503.38	
1681040	METER EACH SIZE	194	19860510	4,142.00	1.5195	6,293.77	
1681041	METER EACH SIZE	2	19860510	157.67	1.5195	239.58	
1681042	METER EACH SIZE	1	19860510	260.00	1.5195	395.07	
1681045	METER EACH SIZE	22	19871001	1,006.37	1.4810	1,490.43	
1681046	METER EACH SIZE	50	19871001	2,287.20	1.4810	3,387.34	
1681047	METER EACH SIZE	0	19871001	154.00	1.4810	228.07	
1681049	METER BOXES	5	19871001	115.20	1.4810	170.61	

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Company Code: 4002		Business Area: 4503		Tubac Valley Water			
Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost	
Asset Class:	W34600 Meters						
1681055	METER EACH SIZE	25	19880101	1,035.32	1.4624	1,514.05	
1681054	METER EACH SIZE	25	19881001	989.29	1.4267	1,411.42	
1681057	METER BOXES	12	19881001	275.71	1.4267	393.36	
1681066	METER EACH SIZE	25	19891215	1,394.00	1.3930	1,941.84	
1681067	METER EACH SIZE	25	19891215	883.00	1.3930	1,230.02	
1681080	FIRE HYDRANT MET	17	19900115	28,661.70	1.3930	39,925.75	
1681078	METER EACH SIZE	30	19900715	1,432.00	1.3605	1,948.24	
1681079	METER EACH SIZE	100	19901215	3,452.00	1.3605	4,696.45	
1681090	METER BOXES	0	19910915	91.00	1.3605	123.81	
1681091	METER BOXES	30	19911215	905.00	1.3605	1,231.25	
1681100	METER EACH SIZE	50	19920415	1,029.24	1.3765	1,416.75	
1681103	METER EACH SIZE	2	19920415	346.91	1.3765	477.52	
1681104	METER BOXES	22	19920415	439.85	1.3765	605.45	
1681101	METER EACH SIZE	48	19920715	970.00	1.3448	1,304.46	
1681102	METER EACH SIZE	0	19921215	757.50	1.3448	1,018.69	
1681111	METER EACH SIZE	50	19930115	2,525.32	1.3146	3,319.79	
1681112	METER EACH SIZE	24	19930115	1,270.11	1.3146	1,669.69	
1681113	METER EACH SIZE	15	19930115	736.37	1.3146	968.03	
1681114	METER EACH SIZE	2	19930115	361.28	1.3146	474.94	
1681115	METER EACH SIZE	2	19930115	383.89	1.3146	504.66	
1681116	METER BOXES	15	19930115	558.03	1.3146	733.59	
1681120	METER EACH SIZE	12	19940215	406.00	1.2580	510.75	
1681121	METER EACH SIZE	0	19941115	203.00	1.2315	249.99	
1681184	METER EACH SIZE	23	19950115	838.18	1.2061	1,010.93	
1681183	METER EACH SIZE	0	19951215	226.69	1.1939	270.65	
1681185	METER EACH SIZE	34	19951215	1,485.46	1.1939	1,773.49	
1681186	METER EACH SIZE	0	19951215	90.44	1.1939	107.98	
1681187	FIRE HYDRANT MET	2	19951215	2,352.56	1.1939	2,808.72	
1681217	METER BOXES	5	19960615	247.34	1.1818	292.31	
1681213	METER EACH SIZE	28	19961215	717.96	1.1700	840.01	
1681214	METER EACH SIZE	6	19961215	431.50	1.1700	504.86	
1681215	METER EACH SIZE	6	19961215	60.41	1.1700	70.68	
1681216	METER EACH SIZE	0	19961215	439.20	1.1700	513.86	
1681279	METER EACH SIZE	25	19971215	6,899.20	1.1471	7,914.07	
1681280	METER EACH SIZE	5	19971215	144.48	1.1471	165.73	

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Company Code: 4002		Business Area: 4503		Tubac Valley Water			
Asset Class:	W34600	Meters					
Asset Class:	W34800	Hydrants					
Asset Class:	W38900	Land and Land Rights					
Asset Class:	W39000	Interest Privile					
Asset Class:	W39000	Interest Privile					
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10/11/2002

RCN Asset Listing
Plant at 12/31/2001Exhibit
Schedule B-4
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Witness: Bourassa

Company Code: 4002		Business Area: 4503		Tubac Valley Water			
Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost	
Asset Class: W39000 Structures and Improvements							
1681134	AIR CONDITIONING	1	19951215	269.20	1.1939	321.40	
1681135	FIXTURE	0	19951215	228.56	1.1939	272.88	
Total for class W39000:				497.76		594.28	
Asset Class: W39100 Office Furniture and Equipment							
1681122	TYPEWRITER EACH	1	19940315	163.11	1.2580	205.19	
1681189	PHOTOCOPY MACHIN	1	19951215	1,229.00	1.1939	1,467.30	
1681190	STORAGE RACKS	1	19951215	314.00	1.1939	374.88	
1681222	METER READING DE	0	19960915	2,688.21	1.1700	3,145.21	
1681288	DATA MODEM	1	19970115	623.05	1.1471	714.70	
1681286	MICRO COMPUTER	1	19970415	2,101.56	1.1471	2,410.70	
1681287	PRINTER	1	19970415	813.02	1.1471	932.62	
1681226	OFFICE FURNITURE	0	19971215	106.47	1.1471	122.13	
1681285	CALCULATOR	0	19971215	100.87	1.1471	115.71	
1681289	MEMORY BOARDS	1	19971215	536.39	1.1471	615.29	
1681340	SECRETARY OR STE	1	19981215	106.79	1.1250	120.14	
1681341	CELLULAR TELEPHO	0	19981215	529.00	1.1250	595.13	
1681342	MICRO COMPUTER	3	19981215	1,875.40	1.1250	2,109.83	
1681344	WALL CHARGER POW	1	19981215	264.45	1.1250	297.51	
Total for class W39100:				11,451.32		13,226.34	
Asset Class: W39110 Computer Equipment							
1681123	PRINTER	1	19940315	1,021.11	1.2580	1,284.56	
1681220	4910C PERIPHERAL	0	19960915	2,750.00	1.1700	3,217.50	
1681219	COMPUTER WORK ST	0	19961215	39.99	1.1700	46.79	
1681221	DEC 2.6 GB TAPE	2	19961215	672.78	1.1700	787.15	
1681343	MICRO COMPUTER	1	19981115	3,655.29	1.1250	4,112.20	
3081802	Property Specifi	1	20000101	1,295.87	1.0833	1,403.82	
3081802	Property Specifi	0	19981231	0.00	1.1250	0.00	
Total for class W39110:				9,435.04		10,852.02	
Asset Class: W39200 Transportation Equipment							
1681291	TRUCK	0	19970815	307.11	1.1471	352.29	
1681345	PICK UP	1	19980915	16,858.44	1.1250	18,965.75	
Total for class W39200:				17,165.55		19,318.04	

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RCN Asset Listing
Plant at 12/31/2001Exhibit
Schedule B-4
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Witness: Bourassa

Company Code: 4002		Business Area: 4503		Tubac Valley Water		
Main	Description	Qty	Acquisition Date	Original Cost	Factor	RCN Cost
Asset Class: W39300 Stores Equipment						
1681125	LOCKER EACH	1	19940315	3,417.80	1.2580	4,299.59
Total for class W39300:				3,417.80		4,299.59
Asset Class: W39400 Tools, Shop and Garage						
1680996	CUT TAP THAWING	1	19820101	90.00	1.7206	154.85
1680997	PAINT GUN EACH	1	19820101	169.00	1.7206	290.78
1681058	CLAMP EACH	0	19881001	29.16	1.4267	41.60
1681059	HAND TOOLS EACH	0	19881001	27.84	1.4267	39.72
1681083	WRENCH SET	1	19901215	32.00	1.3605	43.54
1681084	SMALL TOOL LESS	1	19901215	30.00	1.3605	40.82
1681085	PIPE CUTTER	1	19901215	109.00	1.3605	148.29
1681126	PILOT SHUT-OFF T	0	19940115	562.15	1.2580	707.18
1681127	SIGN	1	19940115	186.01	1.2580	234.00
1681128	PUMP PORTABLE EA	1	19940115	1,475.65	1.2580	1,856.37
1681129	LADDER EACH	1	19940115	3,682.04	1.2580	4,632.01
1681224	PIPE WRENCH	1	19961215	61.60	1.1700	72.07
1681284	RUBBER BOOTS	1	19971215	119.41	1.1471	136.98
1681292	FLASH LIGHTS	1	19971215	58.34	1.1471	66.92
1681293	CARRYING CASE	1	19971215	151.82	1.1471	174.15
1681294	AMP METER	2	19971215	200.39	1.1471	229.87
1681295	SOCKET SET	1	19971215	113.83	1.1471	130.57
1681346	WRENCH	1	19981215	128.10	1.1250	144.11
1681347	HAMMER DRILL	0	19981215	118.00	1.1250	132.75
1681348	PRESSURE RECORDER	1	19981215	500.58	1.1250	563.15
1681349	PRESSURE RECORDER	1	19981215	135.00	1.1250	151.88
1681350	CURB AND VALVE B	1	19981215	180.83	1.1250	203.43
Total for class W39400:				8,160.75		10,195.04
Asset Class: W39700 Communication Equipment						
1681133	PC FOR COMM EQUI	1	19940115	529.15	1.2580	665.67
1681131	TELEPHONE INSTRU	1	19940315	125.15	1.2580	157.44
1681132	TELETYPE APPARAT	1	19940315	764.81	1.2580	962.13
1681191	TELEPHONE INSTRU	1	19951215	450.00	1.1939	537.26
1681225	TELEPHONE INSTRU	2	19961215	399.98	1.1700	467.98
1730178	TELEPHONE INSTRU	2	19971215	191.81	1.1471	220.03

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RCN Asset Listing
Plant at 12/31/2001

Total for class W39700:
Asset Class: W39800 Miscellaneous Equipment
1681296 SIGN 25 19971215
Total for class W39800:
Total for company 4002:
Report Total:

Source: Czn2002az_1_2

2,460.90
659.03
659.03
1,993,114.59
1,993,114.59

1.1471

3,010.51
755.97
755.97
3,476,815.22
3,476,815.22

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Computation of Working Capital

Exhibit
Schedule B-5
Page 1
Witness: Bourassa

Line
No.

1	Cash Working Capital (1/8 of Allowance		
2	Operation and Maintenance Expense)	\$	14,182
3	Pumping Power (1/24 of Pumping Power)		865
4	Material and Supplies Inventories		-
5	Prepayments		-
6			
7			
8	Total Working Capital Allowance	<u>\$</u>	<u>15,047</u>
9			
10			
11	Working Capital Requested	<u>\$</u>	<u>-</u>
12			
13			
14	<u>SUPPORTING SCHEDULES:</u>	<u>RECAP SCHEDULES:</u>	
15	E-1	B-1	
16			

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Income Statement

Exhibit
Schedule C-1
Page 1
Witness: Bourassa

Line No.		Test Year Book Results	Label	Adjustment	Test Year Adjusted Results	Proposed Rate Increase	Adjusted with Rate Increase
1	Revenues						
2	Metered Water Revenues	\$ 249,319	11	2,476	\$ 251,795	264,758	\$ 516,553
3	Unmetered Water Revenues	-			-		-
4	Other Water Revenues	2,691			2,691		2,691
5		<u>\$ 252,010</u>		<u>\$ 2,476</u>	<u>\$ 254,486</u>	<u>\$ 264,758</u>	<u>\$ 519,244</u>
6	Operating Expenses						
7	Salaries and Wages	\$ 60,229	2a,4a,10a	17,461	\$ 77,690		\$ 77,690
8	Purchased Water	-			-		-
9	Purchased Power	20,568	1b,16	199	20,767		20,767
10	Chemicals	16	1c	-	16		16
11	Repairs and Maintenance	18,029	1d	-	18,029		18,029
12	Office Supplies and Expense	9,145	1e,10b	10,820	19,965		19,965
13	Outside Services	12,759	1f	(2,243)	10,516		10,516
14	Service Company Charges	-	3	38,653	38,653		38,653
15	Water Testing	-	13	1,420	1,420		1,420
16	Rents	2,394	1g,12	1,060	3,454		3,454
17	Transportation Expenses	-			-		-
18	Insurance - General Liability	2,143	1h,10c	1,285	3,428		3,428
19	Insurance - health and Life	-			-		-
20	Regulatory Commission Expense - Rate Case	309	8	1,371	1,680		1,680
21	Miscellaneous Expense	29,728	1i,10d	(22,706)	7,022		7,022
22	Depreciation Expense	52,617	5	(15,409)	37,208		37,208
23	Taxes Other Than Income	26,283	1a,2b,4b	(21,474)	4,809		4,809
24	Property Taxes	-	6	24,954	24,954		24,954
25	Income Tax	7,894			-		73,225
26							-
27	Total Operating Expenses	<u>\$ 242,114</u>		<u>\$ 35,389</u>	<u>\$ 269,609</u>	<u>\$ -</u>	<u>\$ 342,834</u>
28	Operating Income	<u>\$ 9,896</u>		<u>\$ (32,913)</u>	<u>\$ (15,123)</u>	<u>\$ 264,758</u>	<u>\$ 176,410</u>
29	Other Income (Expense)						
30	Interest Income	-			-		-
31	Other income	80	14a	(80)	-		-
32	Interest Expense	(112,591)	7	52,663	(59,928)		(59,928)
33	Other Expense	9,673	14b	(9,673)	-		-
34	Gain/Loss Sale of Fixed Assets	-			-		-
35	Total Other Income (Expense)	<u>\$ (102,838)</u>		<u>\$ 42,910</u>	<u>\$ (59,928)</u>	<u>\$ -</u>	<u>\$ (59,928)</u>
36	Net Profit (Loss)	<u>\$ (92,942)</u>		<u>\$ 9,996</u>	<u>\$ (75,052)</u>	<u>\$ 264,758</u>	<u>\$ 116,482</u>

SUPPORTING SCHEDULES:
C-2
E-2

RECAP SCHEDULES:
A-1

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Adjustments to Revenues and Expenses

Exhibit
Schedule C-2
Page 1
Witness: Bourassa

Line No.	Adjustments to Revenues and Expenses						Subtotal
	1 Remove Citizens Corp. Allocations	2 Remove T.Y. Salaries & Wages	3 Service Company Charges	4 Projected Salaries & Wages	5 Depreciation Expense	6 Property Taxes	
1							
2							
3	Revenues						-
4							
5	Expenses	(27,929)	(86,512)	38,653	64,473	(15,409)	24,954
6							(1,771)
7	Operating						
8	Income	27,929	86,512	(38,653)	(64,473)	15,409	(24,954)
9							1,771
10	Interest						
11	Expense						-
12	Other						
13	Income /						
14	Expense						
15							
16	Net Income	27,929	86,512	(38,653)	(64,473)	15,409	(24,954)
17							1,771
18							
19		Adjustments to Revenues and Expenses					Subtotal
20		7 Interest Exp. Synch. W/ Rate Base	8 Rate Case Expense	9 INTENTIONALLY LEFT BLANK	10 Projected Additional Expenses	11 Revenue Annualization	12 Corporate Office Lease
21						2,476	
22	Revenues						2,476
23							
24	Expenses		1,371	-	33,106		1,060
25							33,766
26	Operating						
27	Income	-	(1,371)	-	(33,106)	2,476	(1,060)
28							(31,290)
29							
30	Interest						
31	Expense	52,663					52,663
32	Other						
33	Income /						
34	Expense						
35							
36	Net Income	52,663	(1,371)	-	(33,106)	2,476	(1,060)
37							21,373
38							
39		Adjustments to Revenues and Expenses					Total
40		13 Local Water Testing Expense	14 Remove Other Revenues/Expenses	15 INTENTIONALLY LEFT BLANK	16 Power Costs Adjustment	17	18
41							
42	Revenues						2,476
43							
44	Expenses	1,420	-	-	204		35,389
45							
46	Operating						
47	Income	(1,420)	-	-	(204)	-	-
48							(32,913)
49							
50	Interest						
51	Expense						52,663
52	Other						
53	Income /		(9,753)				(9,753)
54	Expense						
55							
56	Net Income	(1,420)	(9,753)	-	(204)	-	-
							9,996

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Adjustments to Revenues and Expenses
Adjustment Number 1a-1i

Exhibit
Schedule C-2
Page 2
Witness: Bourassa

Line
No.

1	<u>Remove Citizen's Corporate Allocations</u>			
2				
3	<u>Account</u>	<u>Description</u>	<u>Amount</u>	<u>Adjustment Label</u>
4	408	Taxes Other Than Income	-	1a
5	615	Purchased Power	(4)	1b
6	618	Chemicals	-	1c
7	620	Repairs and Maintenance	-	1d
8	621	Office Supplies and Expense	(627)	1e
9	630	Outside Services	(2,243)	1f
10	641	Rents	-	1g
11	657	Insurance - General Liability	(2,127)	1h
12	675	Miscellaneous Expense	(22,928)	1i
13	Total Adjustments		<u>(27,929)</u>	
14				
15	Adjustment to Revenues and/or Expenses		<u>(27,929)</u>	
16				
17				
18				
19				

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Adjustments to Revenues and Expenses
Adjustment 2

Exhibit
Schedule C-2
Page 3
Witness: Bourassa

Line
No.

1 Remove Test Year Salaries & Wages and Related Expenses

2

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<u>Account</u>	<u>Description</u>	<u>Amount</u>	<u>Adjustment Label</u>
601	Salaries & Wages	(60,229)	2a
408	Payroll Taxes	(26,283)	2b

Total Adjustments (86,512)

Adjustment to Revenues and/or Expenses (86,512)

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Adjustments to Revenues and Expenses
Adjustment Number 3

Exhibit
Schedule C-2
Page 4
Witness: Bourassa

Line
No.

1	<u>Service Company Charges</u>		
2			
3	Total Service Charges	\$ 5,153,711	
4	Allocation Factor (4 Factor Formula)	0.0075	
5	Total Charges		<u>\$ 38,653</u>
6			
7			
8			
9			
10			
11			
12			
13	Adjustment to Revenues and/or Expenses		<u>\$ 38,653</u>
14			
15			
16			
17			

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Adjustments to Revenues and Expenses
Adjustment Number 4

Exhibit
Schedule C-2
Page 5
Witness: Bourassa

Line

No.

1 Projected Salaries & Wages and Related Expenses

2

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17

<u>Account</u>	<u>Description</u>	<u>Amount</u>	<u>Adjustment Label</u>
601	Salaries & Wages	\$ 59,664	4a
408	Payroll Taxes	4,809	4b
Total		<u>\$ 64,473</u>	
Adjustment to Revenues and/or Expenses		<u>\$ 64,473</u>	

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Adjustments to Revenues and Expenses
Adjustment Number 5

Exhibit
Schedule C-2
Page 6
Witness: Bourassa

Line No.					
1	<u>Depreciation Expense</u>				
2					
3	<u>Account</u>				<u>Depreciation</u>
4	<u>No.</u>	<u>Description</u>	<u>Original Cost</u>	<u>Rate</u>	<u>Expense</u>
5		Intangible			
6	301.00	Organization	\$ 567	0.00%	\$ -
7	302.00	Franchises	2,030	0.00%	-
8	303.00	Miscellaneous Intangibles	-	0.00%	-
9		<u>Subtotal Intangible</u>	<u>\$ 2,597</u>		<u>\$ -</u>
10					
11		Source of Supply			
12	310.00	Land and Land Rights	\$ 20,414	0.00%	\$ -
13	311.00	Structures and Improvements	19,992	2.40%	480
14	312.00	Collecting and Impounding Res.	-	0.00%	-
15	313.00	Lakes, Rivers, Other Intakes	-	0.00%	-
16	314.00	Wells and Springs	179,355	3.08%	5,524
17		<u>Subtotal Source of Supply</u>	<u>\$ 219,761</u>		<u>\$ 6,004</u>
18					
19		Pumping			
20	320.00	Land and Land Rights	\$ -	0.00%	\$ -
21	321.00	Structures and Improvements	14,608	1.94%	283
22	323.00	Other Power Production	-	0.00%	-
23	325.00	Electric Pumping Equipment	241,749	4.24%	10,250
24	326.00	Diesel Pumping Equipment	879	5.00%	44
25	328.10	Gas Engine Pumping Equipment	42,995	4.24%	1,823
26		<u>Subtotal Pumping</u>	<u>\$ 300,231</u>		<u>\$ 12,400</u>
27					
28		Water Treatment			
29	330.00	Land and Land Rights	\$ 50	0.00%	\$ -
30	331.00	Structures and Improvements	-	0.00%	-
31	332.00	Water Treatment Equipment	505	4.00%	20
32		<u>Subtotal Water Treatment</u>	<u>\$ 555</u>		<u>\$ 20</u>
33					
34		Transmission and Distribution			
35	340.00	Land and Land Rights	\$ 539	0.00%	\$ -
36	341.00	Structures and Improvements	156	1.92%	3
37	342.00	Distribution, Reservoirs, & ST	142,420	1.62%	2,307
38	343.00	Transmission and Distribution	884,097	1.97%	17,417
39	344.00	Fire Mains	-	0.00%	-
40	345.00	Services	272,942	2.45%	6,687
41	346.00	Meters	87,950	2.42%	2,128
42	348.00	Hydrants	24,189	1.97%	477
43	349.00	Other Transmission & Distribution	-	0.00%	-
44		<u>Subtotal Transmission and Distribution</u>	<u>\$ 1,412,294</u>		<u>\$ 29,019</u>
45					
46		General			
47	389.00	Land and Land Rights	\$ 26	0.00%	\$ -
48	390.00	Structures and Improvements	17,767	2.89%	513
49	391.00	Office Furniture and Equipment	5,293	3.28%	174
50	391.10	Computer Equipment	7,577	3.28%	249
51	392.00	Transportation Equipment	9,535	25.00%	2,384
52	393.00	Stores Equipment	152	4.00%	6
53	394.00	Tools, Shop and Garage	2,181	3.42%	75
54	395.00	Laboratory Equipment	691	0.00%	-
55	396.00	Power Operated Equipment	638	0.00%	-
56	397.00	Communication Equipment	3,064	5.03%	154
57	398.00	Miscellaneous Equipment	1,470	4.93%	72
58		<u>Subtotal General</u>	<u>\$ 48,394</u>		<u>\$ 3,627</u>
59					
60					
61					
62		ADPUC adjustment 3/95	(1,835)	2.56%	(47)
63		<u>TOTALS</u>	<u>\$ 1,981,996</u>		<u>\$ 51,023</u>
64					
65					
66					
67	Proforma Plant (to be completed by 12/31/2002)	\$ 51,790	2.5767%	1,334	
68	Amortization of Citizens Acquisition Adjustment (C-2, Page 6a)			1,100	
69	Amortization of Deferred Regulatory Assets	\$ 4,596	2.5767%	118	
70	Depreciation on Well not-in-service	\$ 64,945	3.0800%	(2,000)	
71	Less: Amortization of Contributions	\$ 143,675	10.0000%	(14,367)	
72					
73	Total Depreciation Expense			\$ 37,208	
74					
75	Test Year Depreciation Expense			52,617	
76					
77	Increase (decrease) in Depreciation Expense			(15,409)	
78					
79	Adjustment to Revenues and/or Expenses			\$ (15,409)	
80					

Arizona American - Tubac Valley Water
Citizens Acquisition Adjustment
Amortization Schedule

Exhibit
Schedule C-2
Page 6a
Witness: Bourassa

Line
No.

1		
2	Acquisition Adjustment	531,184
3	Annual Rate (Cost of Capital)	10.64%
4	Term (years)	40

	<u>Year</u>	<u>Principal Reduction</u>	<u>Balance</u>
9	1	\$ 1,000	530,184
10	2	1,100	529,084
11	3	1,200	527,884
12	4	1,400	526,484
13	5	1,500	524,984
14	6	1,700	523,284
15	7	1,800	521,484
16	8	2,000	519,484
17	9	2,300	517,184
18	10	2,500	514,684
19	11	2,800	511,884
20	12	3,100	508,784
21	13	3,400	505,384
22	14	3,800	501,584
23	15	4,200	497,384
24	16	4,600	492,784
25	17	5,100	487,684
26	18	5,600	482,084
27	19	6,200	475,884
28	20	6,900	468,984
29	21	7,600	461,384
30	22	8,400	452,984
31	23	9,300	443,684
32	24	10,300	433,384
33	25	11,400	421,984
34	26	12,600	409,384
35	27	14,000	395,384
36	28	15,500	379,884
37	29	17,100	362,784
38	30	18,900	343,884
39	31	20,900	322,984
40	32	23,200	299,784
41	33	25,600	274,184
42	34	28,300	245,884
43	35	31,400	214,484
44	36	34,700	179,784
45	37	38,400	141,384
46	38	42,500	98,884
47	39	47,000	51,884
48	40	52,000	(116)

Principal Reduction
<u>1,100</u>

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Adjustments to Revenues and Expenses
Adjustment Number 6

Exhibit
Schedule C-2
Page 7
Witness: Bourassa

Line

No.

1 Property Taxes

2

3 Revenues in year ended 12/31/01

\$ 252,010

4 Adjusted Revenues in year ended 12/31/01

254,486

5 Proposed Revenues

519,244

6 Average of three year's of revenue

\$341,913

7 Average of three year's of revenue, times 2

\$683,827

8 Add:

9 Construction Work in Progress at 10%

10 Deduct:

11 Book Value of Transportation Equipment

9,535

12 Book Value of Transportation Equipment (proforma)

0

13 Total Book Value of Transportation Equipment

\$ 9,535

14

15 Full Cash Value

\$ 674,291

16 Assessment Ratio

25%

17 Assessed Value

168,573

18 Property Tax Rate

14.796183%

19

20 Property Tax

24,942

21 Tax on Parcels

12

22

23 Total Property Tax at Proposed Rates

\$ 24,954

24 Property Taxes in the test year

0

25 Change in Property Taxes

\$ 24,954

26

27

28 Adjustment to Revenues and/or Expenses

\$ 24,954

29

30

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Adjustments to Revenues and Expenses
Adjustment Number 7

Exhibit
Schedule C-2
Page 8
Witness: Bourassa

Line
No.

1	<u>Interest Synchronization with Rate Base</u>	
2		
3	Fair Value Rate Base	\$1,903,764
4	Weighted Cost of Debt from Schedule D-1	3.15%
5	Synchronized Interest Expense	<u>59,928</u>
6	Test Year Interest Expense, Per Books	<u>112,591</u>
7	Increase in Interest Expense	<u>\$ (52,663)</u>
8		
9	Adjustment to Revenues and/or Expense	<u>52,663</u>
10		
11		

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 8

Exhibit
Schedule C-2
Page 9
Witness: Bourassa

Line
No.

1	<u>Rate Case Expense</u>		
2			
3	Estimated Rate Case Expense	\$	5,039
4			
5	Estimated Amortization Period in Years		3
6			
7	Annual Rate Case Expense	\$	<u>1,680</u>
8			
9	Test Year Rate Case Expense	\$	309
10			
11	Increase(decrease) Rate Case Expense	\$	<u>1,371</u>
12			
13	Adjustment to Revenue and/or Expense	\$	<u>1,371</u>
14			
15			
16			

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 9

Exhibit
Schedule C-2
Page 10
Witness: Bourassa

Line
No.

1 Intentionally Left Blank

2

3

4

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6

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8

9

10

11

12 Adjustment to Revenue and/or Expense

\$ -

13

14

15

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 10

Exhibit
Schedule C-2
Page 11
Witness: Bourassa

Line
No.

		Adjustment Label
1	<u>Projected Additional Expenses</u>	
2		
3		
4	Salaries & Wages	\$ 18,026 10a
5	Office Expense	11,447 10b
6	Insurance	3,412 10c
7	Misc Expense	<u>221 10d</u>
8		
9		
10		
11	Adjustment to Revenue and/or Expense	<u>\$ 33,106</u>
12		
13		

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 11

Exhibit
Schedule C-2
Page 12
Witness: Bourassa

Line
No.

1 Revenue Annualization

2

3

4 Revenue Annualization

\$ 2,476

5

6

7

8 Total Revenue from Annualization

\$ 2,476

9

10

11 Adjustment to Revenue and/or Expense

\$ 2,476

12

13

14

15

16

17

18

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 12

Exhibit
Schedule C-2
Page 13
Witness: Bourassa

Line
No.

1 Corporate Office Lease

2

3

4 New Corporate Office

\$ 1,060

5

6

7

8 Total

\$ 1,060

9

10

11 Adjustment to Revenue and/or Expense

\$ 1,060

12

13

14

15

16

17

18

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 13

Exhibit
Schedule C-2
Page 14
Witness: Bourassa

Line
No.

1 Water Testing Expenses (Not part of water testing included management fees)

2

3

4 Test Year Amount* \$ 1,420

5

6

7

8 Total \$ 1,420

9

10

11 Adjustment to Revenue and/or Expense \$ 1,420

12

13

14

15

16 * Removed in Adjustment 2 and need to be added back to expenses.

17

18

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 14

Exhibit
Schedule C-2
Page 15
Witness: Bourassa

Line
No.

1 Remove Other Income and Expenses

2

3

4 Test Year Other Income

\$ (80)

Adjustment Label

14a

5 Test Year Other Expense

(9,673)

14b

6

7

8 Total

\$ (9,753)

9

10

11 Adjustment to Revenue and/or Expense

\$ (9,753)

12

13

14

15

16

17

18

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 15

Exhibit
Schedule C-2
Page 16
Witness: Bourassa

Line
No.

1 Intentionally Left Blank

2

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10 Adjustment to Revenue and/or Expense

\$ -

11

12

13

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 16

Exhibit
Schedule C-2
Page 17
Witness: Bourassa

Line
No.

1	<u>Power cost adjustment for additional gallons from annualization of revenues</u>		
2			
3	Test Year Power Costs (after adjustment1b)	\$	20,572
4	Gallons sold in Test Year (1,000's)		80,511
5	Cost per 1,000 gallons		0.25552
6	Additonal gallons from annualization		797
7			
8	Additional Expense	\$	<u>204</u>
9			
10			
11	Adjustment to Revenue and/or Expense	\$	<u>204</u>
12			
13			
14			

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Computation of Gross Revenue Conversion Factor

Exhibit
Schedule C-3
Page 1
Witness: Bourassa

Line No.	Description	Percentage of Incremental Gross Revenues
1	Federal Income Taxes	31.63%
2		
3	State Income Taxes	6.97%
4		
5	Other Taxes and Expenses	<u>0.00%</u>
6		
7		
8	Total Tax Percentage	38.60%
9		
10	Operating Income % = 100% - Tax Percentage	61.40%
11		
12		
13		
14		
15	<u>1</u> = Gross Revenue Conversion Factor	
16	Operating Income %	1.6286
17		
18	<u>SUPPORTING SCHEDULES:</u>	<u>RECAP SCHEDULES:</u>
19		A-1
20		

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Summary of Cost of Capital

Exhibit
Schedule D-1
Page 1
Witness: Stephenson

		<u>End of Test Year</u>			<u>End of Projected Year</u>		
Line		Percent of <u>Total</u>	Cost <u>Rate</u> (a)	Weighted <u>Cost</u>	Percent of <u>Total</u>	Cost <u>Rate</u> (a)	Weighted <u>Cost</u>
No.	<u>Item of Capital</u>						
1	Long-Term Debt	59.89%		3.04%	60.00%		3.15%
2							
3	Stockholder's Equity (c)	40.11%	11.50%	4.61%	40.00%	11.50%	4.60%
4							
5	Totals	100.00%		7.65%	100.00%		7.75% (b)

(a) See D-2
(b) Used on A-1
SUPPORTING SCHEDULES:

D-1
D-3
D-4
E-1

Line No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Arizona American - Tubac Valley Water
 Test Year Ended December 31, 2001
 Cost of Long Term Debt

Exhibit
 Schedule D-2
 Page 1
 Witness: Stephenson

Line No.	Description of Debt	End of Test Year		End of Projected Year	
		Percent	Interest Rate	Percent	Interest Rate
1					
2	Long-Term Debt	56.04%	4.92%	52.26%	4.92%
3	Long-Term Debt	3.85%	7.30%	3.85%	7.30%
4	Long-Term Debt	0.00%	0.00%	3.89%	7.60%
5			0.00%		
6					
7					
8					
9					
10	Totals	59.89%		60.00%	
11					
12	Supporting Schedules:				
13					
14					
15					
16					
17					
18					

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Cost of Preferred Stock

Exhibit
Schedule D-3
Page 1
Witness: Stephenson

Line No.	Description of Issue	<u>End of Test Year</u>			<u>End of Projected Year</u>		
		Shares Outstanding	Amount	Dividend Requirement	Shares Outstanding	Amount	Dividend Requirement
1							
2							
3	NOT APPLICABLE, NO PREFERRED STOCK ISSUED OR OUTSTANDING						
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17	SUPPORTING SCHEDULES:				RECAP SCHEDULES:		
18	(a) E-1				(a) D-1		
19							
20							

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Cost of Common Equity

Exhibit
Schedule D-4
Page 1
Witness: Zepp

Line

No.

1
2
3
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20

THE COMPANY IS REQUESTING 11.5% RATE OF RETURN ON COMMON EQUITY.
THE REQUEST IS SUPPORTED BY THE TESTIMONY AND EXHIBITS OF
DR. THOMAS M. ZEPP INCLUDED IN THE FILING.

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Comparative Balance Sheets

Exhibit
Schedule E-1
Page 1
Witness: Bourassa

Line No.		Test Year Ended 12/31/01	Prior Year Ended 12/31/00	Prior Year Ended 12/31/99	Prior Year Ended 12/31/98
1	ASSETS				
2	Plant In Service	\$ 1,993,115	\$ 1,928,560	\$ 1,947,901	1,963,843
3					
4	Non-Utility Plant	-	-	-	
5	Construction Work in Progress	15,645	17,186	-	(41,182)
6	Less: Accumulated Depreciation	569,078	515,793	508,080	448,825
7	Net Plant	<u>\$ 1,439,682</u>	<u>\$ 1,429,953</u>	<u>\$ 1,439,821</u>	<u>\$ 1,473,836</u>
8					
9	Debt Reserve Fund	\$ -	\$ -	\$ -	
10					
11	CURRENT ASSETS				
12	Cash and Equivalents	\$ -	\$ -	\$ -	
13	Accounts Receivable, Net	27,054	3,319	23,895	25,199
14	Notes/Receivables from Associated Companies	30,283	136,594	60,456	20,055
15	Materials and Supplies	-	-	-	
16	Prepayments	1,546	-	-	
17	Other Current Assets	5,059	6,157	-	7,836
18	Total Current Assets	<u>\$ 63,942</u>	<u>\$ 146,070</u>	<u>\$ 84,351</u>	<u>\$ 53,090</u>
19					
20	Deferred Debits	\$ -	\$ -	\$ 6,814	61,485
21					
22	Other Investments & Special Funds	\$ -	\$ -	\$ -	\$ -
23					
24	TOTAL ASSETS	<u>\$ 1,503,624</u>	<u>\$ 1,576,023</u>	<u>\$ 1,530,986</u>	<u>\$ 1,588,411</u>
25					
26					
27	LIABILITIES AND STOCKHOLDERS' EQUITY				
28					
29	Common Equity	\$ 597,185	\$ 690,127	\$ 692,146	680,834
30					
31	Long-Term Debt	\$ -	\$ -	\$ -	\$ -
32					
33	CURRENT LIABILITIES				
34	Accounts Payable	\$ 163	\$ 240	\$ -	
35	Current Portion of Long-Term Debt	-	-	-	
36	Payables to Associated Companies	582,644	544,976	544,976	544,976
37	Customer Deposits	590	1,125	1,314	770
38	Taxes Payable	12,549	17,559	8,002	11,973
39	Interest Payable	-	-	-	
40	Other Current Liabilities	-	-	-	
41	Total Current Liabilities	<u>\$ 595,946</u>	<u>\$ 563,900</u>	<u>\$ 554,292</u>	<u>\$ 557,719</u>
42	DEFERRED CREDITS				
43	Advances in Aid of Construction	\$ 179,091	\$ 182,867	\$ 136,381	153,722
44	Accumulated Deferred Income Taxes	(19,896)	(19,763)	18,367	39,520
45	Contributions In Aid of Construction, Net	134,973	141,623	148,800	137,401
46	Accumulated Deferred Income Credits	16,325	17,269	(19,000)	19,215
47	Total Deferred Credits	<u>\$ 310,493</u>	<u>\$ 321,996</u>	<u>\$ 284,548</u>	<u>\$ 349,858</u>
48					
49	Total Liabilities & Common Equity	<u>\$ 1,503,624</u>	<u>\$ 1,576,023</u>	<u>\$ 1,530,986</u>	<u>\$ 1,588,411</u>
50					
51	<u>SUPPORTING SCHEDULES:</u>			<u>RECAP SCHEDULES:</u>	
52	E-5			A-3	

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Comparative Income Statements

Exhibit
Schedule E-2
Page 1
Witness: Bourassa

Line No.		Test Year Ended <u>12/31/01</u>	Prior Year Ended <u>12/31/00</u>	Prior Year Ended <u>12/31/99</u>	Prior Year Ended <u>12/31/98</u>
1	Operating Revenues	\$ 252,010	\$ 272,516	\$ 289,142	271,383
2	Operation and Maintenance				
3	Expense	\$ 155,320	\$ 170,341	\$ 176,400	\$ 146,968
4	Depreciation & Amortization	52,617	53,966	58,582	36,467
5	Other Taxes	26,283	52,904	37,384	35,507
6	Income Taxes	7,894	(1,349)	5,587	20,647
7	Total Expense	\$ 242,114	\$ 275,862	\$ 277,953	\$ 239,589
8	Operating Income	\$ 9,896	\$ (3,346)	\$ 11,189	\$ 31,794
9	Other income	(80)	(1,665)	(6)	(403)
10	Interest Expense	112,591	11	-	
11	Other Expense	(9,673)	327	(117)	0
12	Gain/Loss Sale of Fixed Assets	-	-	-	
13					
14	Net Income	\$ (92,942)	\$ (2,019)	\$ 11,312	\$ 32,197

(*) Above Data from Annual Reports filed with the Arizona Corporation Commission, Utilities Division

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Comparative Statements of Cash Flows

Exhibit
Schedule E-3
Page 1
Witness: Boura

Line No.		Test Year Ended <u>12/31/01</u>	Prior Year Ended <u>12/31/00</u>	Prior Year Ended <u>12/31/99</u>
1				
2				
3	Cash Flows from Operating Activities			
4	Net Income	\$ (92,942)	\$ (2,019)	\$ 11,312
5	Adjustments to reconcile net income to net cash			
6	provided by operating activities:			
7	Depreciation and Amortization	52,617	58,582	58,582
8	Deferred Income Taxes	(133)	(38,130)	(38,215)
9	Accumulated Deferred ITC	(944)	36,269	(21,153)
10	Changes in Certain Assets and Liabilities:			-
11	Accounts Receivable	(23,735)	20,576	1,304
12	Materials and Supplies Inventory			
13	Prepaid Expenses	(1,546)		
14	Misc Current Assets and Deferred Expense	1,098	657	62,508
15	Accounts Payable and Accrued Liabilities	(77)	240	-
16	Accrued Taxes	(5,010)	9,557	(3,971)
17	Net Cash Flow provided by Operating Activities	<u>\$ (70,672)</u>	<u>\$ 85,732</u>	<u>\$ 70,367</u>
18	Cash Flow From Investing Activities:			
19	Capital Expenditures	(68,996)	(48,714)	(24,567)
20	Plant Held for Future Use			
21	Non-Utility Property	-	-	-
22	Net Cash Flows from Investing Activities	<u>\$ (68,996)</u>	<u>\$ (48,714)</u>	<u>\$ (24,567)</u>
23	Cash Flow From Financing Activities			
24	(Decrease) Increase in Net Amounts due to Parent and			
25	Affiliates	143,979	(76,138)	(40,401)
26	Customer Deposits	(535)	(189)	543
27	Changes in Advances for Construction	(3,776)	46,486	(17,341)
28	Changes in Contributions for Construction		(7,177)	11,399
29	Net Proceeds from Long-Term Debt Borrowing	-	-	-
30	Repayments of Long-Term Debt	-	-	-
31	Dividends Paid	-	-	-
32	Deferred Financing Costs	-	-	-
33	Paid in Capital	-	-	-
34	Net Cash Flows Provided by Financing Activities	<u>\$ 139,668</u>	<u>\$ (37,018)</u>	<u>\$ (45,800)</u>
35	Increase(decrease) in Cash and Cash Equivalents	-	-	-
36	Cash and Cash Equivalents at Beginning of Year	-	-	-
37	Cash and Cash Equivalents at End of Year	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Statement of Changes in Stockholder's Equity

Exhibit
Schedule E-4
Page 1
Witness: Boura:

Line No.		Common Stock	Additional Paid-In-Capital	Retained Earnings	Total
1					
2					
3					
4	Balance, December 31, 1997	\$ 46,800	\$ 36,000	\$ 565,837	\$ 648,637
5					
6	Net Income	-	-	32,197	32,197
4					
5	Balance, December 31, 1998	46,800	36,000	598,034	680,834
6					
7	Net Income	-	-	11,312	11,312
8					
4	Balance, December 31, 1999	46,800	36,000	609,346	692,146
5					
6	Net Income	-	-	(2,019)	(2,019)
7					
8	Balance, December 3, 2000	46,800	36,000	607,327	690,127
9					
10	Net Income	-	-	(92,942)	(92,942)
11					
12	Balance, December 31, 2001	\$ 46,800	\$ 36,000	\$ 514,385	\$ 597,185

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Detail of Plant in Service

Exhibit
Schedule E-5
Page 1
Witness: Bourassa

Line No.	Acct. No.	Plant Description	Plant Balance at 12/31/00	Plant Additions, Reclassifications or Retirements	Plant Balance at 12/31/01
1		Intangible			
2	301.00	Organization	\$ 567	\$ -	\$ 567
3	302.00	Franchises	2,030	-	2,030
4	303.00	Miscellaneous Intangibles	-	-	-
5		Subtotal Intangible	\$ 2,597	\$ -	\$ 2,597
6					
7		Source of Supply			
8	310.00	Land and Land Rights	\$ 20,414	\$ -	\$ 20,414
9	311.00	Structures and Improvements	19,992	-	19,992
10	312.00	Collecting and Impounding Res.	-	-	-
11	313.00	Lakes, Rivers, Other Intakes	-	-	-
12	314.00	Wells and Springs	179,355	(0)	179,355
13		Subtotal Source of Supply	\$ 219,761	\$ (0)	\$ 219,761
14					
15		Pumping			
16	320.00	Land and Land Rights	\$ -	\$ -	\$ -
17	321.00	Structures and Improvements	14,608	-	14,608
18	323.00	Other Power Production	-	-	-
19	325.00	Electric Pumping Equipment	241,125	624	241,749
20	326.00	Diesel Pumping Equipment	879	-	879
21	328.10	Gas Engine Pumping Equipment	42,995	-	42,995
22		Subtotal Pumping	\$ 299,607	\$ 624	\$ 300,231
23					
24		Water Treatment			
25	330.00	Land and Land Rights	\$ 50	\$ -	\$ 50
26	331.00	Structures and Improvements	-	-	-
27	332.00	Water Treatment Equipment	505	-	505
28		Subtotal Water Treatment	\$ 555	\$ -	\$ 555
29					
30		Transmission and Distribution			
31	340.00	Land and Land Rights	\$ 539	\$ -	\$ 539
32	341.00	Structures and Improvements	156	-	156
33	342.00	Distribution, Reservoirs, & ST	121,567	20,853	142,420
34	343.00	Transmission and Distribution	903,036	(18,939)	884,097
35	344.00	Fire Mains	-	-	-
36	345.00	Services	212,349	60,593	272,942
37	346.00	Meters	85,925	2,025	87,950
38	348.00	Hydrants	24,189	-	24,189
39	349.00	Other Transmission & Distribution	-	-	-
40		Subtotal Transmission and Distribution	\$ 1,347,762	\$ 64,532	\$ 1,412,294
41					
42		General			
43	389.00	Land and Land Rights	\$ 2,755	\$ -	\$ 2,755
44	390.00	Structures and Improvements	498	-	498
45	391.00	Office Furniture and Equipment	11,451	-	11,451
46	391.10	Computer Equipment	9,435	-	9,435
47	392.00	Transportation Equipment	17,166	-	17,166
48	393.00	Stores Equipment	3,418	-	3,418
49	394.00	Tools, Shop and Garage	8,161	-	8,161
50	395.00	Laboratory Equipment	-	-	-
51	396.00	Power Operated Equipment	-	-	-
52	397.00	Communication Equipment	2,461	1	2,462
53	398.00	Miscellaneous Equipment	659	-	659
54		Subtotal General	\$ 56,003	\$ 1	\$ 56,004
55					
56					
57					
58					
59		TOTAL WATER PLANT	\$ 1,926,284	\$ 65,157	\$ 1,991,442

SUPPORTING SCHEDULES

RECAP SCHEDULES:
A-4
E-1

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Operating Statistics

Exhibit
Schedule E-7
Page 1
Witness: Bourassa

Line No.		Test Year Ended <u>12/31/01</u>	Prior Year Ended <u>12/31/00</u>	Prior Year Ended <u>12/31/99</u>
1	<u>WATER STATISTICS:</u>			
2				
3				
4				
5	Total Gallons Sold (in Thousands)	79,805	88,634	90,296
6				
7				
8				
9	Water Revenues from Customer:	\$ 249,319	\$ 270,055	\$ 287,398
10				
11				
12				
13				
14	Year End Number of Customers	495	483	483
15				
16				
17	Annual Gallons (in Thousands)			
18	Sold Per Year End Customer	161.22	183.51	186.95
19				
20				
21				
22	Annual Revenue per Year End Customer	\$ 503.67	\$ 559.12	\$ 595.03
23				
24	Pumping Cost Per 1,000 Gallons	\$ 0.2577	\$ 0.2611	\$ 0.2459
25	Purchased Water Cost per 1,000 Gallons	\$ -	\$ 0.0001	\$ -

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Taxes Charged to Operations

Exhibit
Schedule E-8
Page 1
Witness: Bourassa

Line No.	Description	Test Year Ended <u>12/31/01</u>	Prior Year Ended <u>12/31/00</u>	Prior Year Ended <u>12/31/99</u>
1	<u>Description</u>			
2				
3	Federal Income Taxes *			
4	State Income Taxes *			
5	Payroll Taxes **	Data Not Available		3,508
6	Property Taxes **	22,231	22,179	18,420
7				
8	Totals	<u>\$ 22,231</u>	<u>\$ 22,179</u>	<u>\$ 21,928</u>
9				
10				
11	*Computed			
12	**Source: ACC Annual Reports			

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Notes To Financial Statements

Exhibit
Schedule E-9
Page 1
Witness: Bourassa

Line

No.

1 **The Company does not prepare audited financial statements.**

2

3

1. The Company follows the NARUC system of accounts.

4

2. The Company uses the accrual method of accounting.

5

3. The Company uses the depreciation lives and methods as approved in prior Commission order.

6

7

4. The Company follows the normalized method for accounting for income taxes and uses the allowed tax depreciation lives and methods for determining income taxes.

8

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Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Projected Income Statements - Present & Proposed Rates

Exhibit
Schedule F-1
Page 1
Witness: Bourassa

Line No.		Test Year Actual Results	At Present Rates Year Ended 12/31/02	At Proposed Rates Year Ended 12/31/02
1	Revenues			
2	Metered Water Revenues	\$ 249,319	\$ 251,795	\$ 516,553
3	Unmetered Water Revenues	-	-	-
4	Other Water Revenues	2,691	2,691	2,691
5		<u>\$ 252,010</u>	<u>\$ 254,486</u>	<u>\$ 519,244</u>
6	Operating Expenses			
7	Salaries and Wages	\$ 60,229	\$ 77,690	\$ 77,690
8	Purchased Water	-	-	-
9	Purchased Power	20,568	20,767	20,767
10	Chemicals	16	16	16
11	Repairs and Maintenance	18,029	18,029	18,029
12	Office Supplies and Expense	9,145	19,965	19,965
13	Outside Services	12,759	10,516	10,516
14	Service Company Charges	-	38,653	38,653
15	Water Testing	-	1,420	1,420
16	Rents	2,394	3,454	3,454
17	Transportation Expenses	-	-	-
18	Insurance - General Liability	2,143	3,428	3,428
19	Insurance - health and Life	-	-	-
20	Regulatory Commission Expense - Rate Case	309	1,680	1,680
21	Miscellaneous Expense	29,728	7,022	7,022
22	Depreciation Expense	52,617	37,208	37,208
23	Taxes Other Than Income	26,283	4,809	4,809
24	Property Taxes	-	24,954	24,954
25	Income Tax	7,894	-	73,225
26				
27	Total Operating Expenses	<u>\$ 242,114</u>	<u>\$ 269,609</u>	<u>\$ 342,834</u>
28	Operating Income	<u>\$ 9,896</u>	<u>\$ (15,123)</u>	<u>\$ 176,410</u>
29	Other Income (Expense)			
30	Interest Income	-	-	-
31	Other income	80	-	-
32	Interest Expense	(112,591)	(59,928)	(59,928)
33	Other Expense	9,673	-	-
34	Gain/Loss Sale of Fixed Assets	-	-	-
35	Total Other Income (Expense)	<u>\$ (102,838)</u>	<u>\$ (59,928)</u>	<u>\$ (59,928)</u>
36	Net Profit (Loss)	<u>\$ (92,942)</u>	<u>\$ (75,052)</u>	<u>\$ 116,482</u>
37				

Arizona American - Tubac Valley Water
Test Year Ended December 31, 2001
Projected Statements of Changes in Financial Position
Present and Proposed Rates

Exhibit
Schedule F-2
Page 1
Witness: Bourassa

Line No.		Test Year Ended 12/31/01	At Present Rates Year Ended 12/31/02	At Proposed Rates Year Ended 12/31/02
1				
2				
3				
4				
5	Cash Flows from Operating Activities			
6	Net Income	\$ (92,942)	\$ (75,052)	\$ 116,482
7	Adjustments to reconcile net income to net cash			
8	provided by operating activities:			
9	Depreciation and Amortization	52,617	37,208	37,208
10	Deferred Income Taxes	(133)		
11	Accumulated Deferred ITC	(944)		
12	Changes in Certain Assests and Liabilities:	-		
13	Accounts Receivable	(23,735)		
14	Materials & Supplies	-		
15	Prepaid Expenses	(1,546)		
16	Misc Current Assets and Deferred Expense	1,098		
17	Accounts Payable and Accrued Liabilities	(77)		
18	Accrued Taxes	(5,010)		
19	Net Cash Flow provided by Operating Activities	\$ (70,672)	\$ (37,844)	\$ 153,690
20	Cash Flow From Investing Activities:			
21	Capital Expenditures	(68,996)	(467,313)	(467,313)
22	Plant Held for Future Use	-		
23	Non-Utility Property	-		
24	Net Cash Flows from Investing Activities	\$ (68,996)	\$ (467,313)	\$ (467,313)
25	Cash Flow From Financing Activities			
26	(Decrease) Increase in Net Amounts due to Parent and			
27	Affiliates	143,979		
28	Customer Deposits	(535)		
29	Changes in Advances for Construction	(3,776)		
30	Changes in Contributions for Construction	-		
31	Proceeds from Long-Term Debt Borrowing	-		
32	Repayments of Long-Term Debt	-		-
33	Dividends Paid	-	-	(87,361)
34	Deferred Financing Costs	-		
35	Net Cash Flows Provided by Financing Activities	\$ 139,668	\$ -	\$ (87,361)
36	Increase(decrease) in Cash and Cash Equivalents	\$ -	\$ (505,157)	\$ (400,985)
37	Cash and Cash Equivalents at Beginning of Year	-	-	-
38	Cash and Cash Equivalents at End of Year	\$ -	\$ (505,157)	\$ (400,985)
39				
40				
41	SUPPORTING SCHEDULES:			
42	E-3			
43	F-3			
44				
45				

Exhibit
Schedule F-3
Page 1
Witness: Bourassa

Line No.	Account Number	Plant Asset:	Thru 12/31/02	2003	2004	2005
1						
2	301	Organization Cost				
3	302	Franchise Cost				
4	303	Land and Land Rights				
5	304	Structures and Improvements		24,000	48,000	
6	306	Lake, River and Other Intakes				
7	307	Wells and Springs				
8	310	Power Generation Equipment				
9	311	Electric Pumping Equipment	2,450	23,500	41,000	
10	320	Water Treatment Equipment		160,000	320,000	
11	330	Distribution Reservoirs & Standpipe		2,500	3,000	
12	331	Transmission and Distribution Mains	355,037	61,392	61,392	
13	333	Services	50,621	14,800	14,800	
14	334	Meters	18,832	5,092	6,092	
15	335	Hydrants	40,373	2,716	2,716	
16	339	Plant Structures and Improvements				
17	340	Office Furniture and Fixtures				
18	341	Transportation Equipment		25,000		
19	343	Tools and Work Equipment				
20	344	Power Operated Equipment				
21	345	Communications Equipment				
22	346	Miscellaneous Equipment				
23	348	Other Tangible Plant				
24						
25						
26						
27	Total		\$ 467,313	\$ 319,000	\$ 497,000	\$ -
28						
29						
30						

Arizona American - Tubac Valley Water

Test Year Ended December 31, 2001

Assumptions Used in Rate Filing

Exhibit

Schedule F-4

Page 1

Witness: Bourassa

Line

No.

- 1 Property Taxes were computed using the method used by the Arizona Department
- 2 of Revenue
- 3
- 4 Projected construction expenditures are shown on Schedule A-4.
- 5
- 6 Expense adjustments are shown on Schedule C2, and are explained in the testimony.
- 7
- 8 Accumulated depreciation and depreciation expense were computed at Arizona Corporation
- 9 Commission allowed rated in Prior Commission Decision.
- 10
- 11 Income taxes were computed using statutory state and federal income tax rates.
- 12
- 13
- 14
- 15

Arizona American - Tubac

Revenue Summary

With Annualized Revenues to Year End Number of Customers
Test Year Ended December 31, 2001

Exhibit
Schedule H-1
Page 1
Witness: Kozoman

Line No.	Meter Size	Customer Classification	Present Revenues	Proposed Revenues	Dollar Change	Percent Change	Percent of Present Water Revenues	Percent of Proposed Water Revenues
1	5/8 Inch	Residential	\$ 192,378	\$ 395,204	\$ 202,825	105.43%	76.54%	76.97%
2	1 Inch	Residential	11,339	23,294	11,955	105.43%	4.51%	4.54%
3	1.5 Inch	Residential	1,501	3,083	1,582	105.42%	0.60%	0.60%
4	2 Inch	Residential	1,671	3,433	1,762	105.44%	0.66%	0.67%
5	3 Inch	Residential	1,255	2,578	1,323	105.47%	0.50%	0.50%
6								
7	5/8 Inch	Commercial	20,444	42,000	21,556	105.44%	8.13%	8.18%
8	1 Inch	Commercial	6,953	14,283	7,330	105.43%	2.77%	2.78%
9	1.5 Inch	Commercial	2,753	5,655	2,902	105.43%	1.10%	1.10%
10	2 Inch	Commercial	9,544	19,604	10,060	105.41%	3.80%	3.82%
11	3 Inch	Commercial	807	1,659	851	105.45%	0.32%	0.32%
12		Miscellaneous Revenues	2,691	2,691	-	0.00%	1.07%	0.52%
13								
14	Subtotal of Water Revenues		\$ 251,336	\$ 513,484	\$ 262,147	104.30%	100.00%	100.00%
15								
16								
17	Revenue Annualization (a)							
18	5/8 Inch	Residential	\$ 738	\$ 1,515	778	105.44%	22	229
19	1 Inch	Residential	370	760	390	105.45%	9	93
20	5/8 Inch	Commercial	350	719	369	105.45%	12	109
21	1 Inch	Commercial	218	447	229	105.43%	4	229
22	3 Inch	Commercial	801	1,646	845	105.45%	6	137
23	Total Revenue Annualization		2,476	5,087	2,611	105.44%		
24	Total Water Revenues with		\$ 253,812	\$ 518,570	264,758	104.31%	53	797
25	Revenue Annualization							
26								

(a) Customer Growth Annualization is calculated by computing the change in the number of customers by month from the beginning of the year to the end of the year, and them multiplying the additional customers times the average revenue revenue for that month.

Arizona American - Tubac
 Analysis of Revenue by Detailed Class
 Test Year Ended December 31, 2001

Exhibit
 Schedule H-2
 Page 1
 Witness: Kozoman

		(a)											
		Average		Average		Revenues		Proposed Increase					
		Number of		Consumption		Present		Proposed		Dollar		Percent	
		Customers				Rates		Rates		Amount		Amount	
		at											
		12/31/01											
Line	Customer												
No.	Classification and/or Meter Size												
1	5/8 Inch Residential	401	13,177	\$	39.19	\$	80.51	41.32	105.43%				
2	1 Inch Residential	18	15,301		51.17		105.13	53.96	105.44%				
3	1.5 Inch Residential	1	40,250		125.07		256.92	131.85	105.42%				
4	2 Inch Residential	1	32,500		139.26		286.09	146.83	105.44%				
5	3 Inch Residential	1	-		-		-	-	0.00%				
6													
7	5/8 Inch Commercial	53	9,090		30.85		63.39	32.53	105.44%				
8	1 Inch Commercial	10	19,172		59.07		121.35	62.28	105.43%				
9	1.5 Inch Commercial	2	35,167		114.70		235.63	120.93	105.43%				
10	2 Inch Commercial	2	159,167		397.66		816.83	419.17	105.41%				
11	3 Inch Commercial	1	22,833		133.54		274.36	140.82	105.45%				
12													
13	Totals	490											
14													
15	Actual Year End Number												
16	of Customers:	494											
17													

(a) Average number of customers of less than one (1), indicates that less than 12 bills were issued during the year.

Arizona American - Tubac
Customer Count Summary
Test Year Ended December 31, 2001

Exhibit
Schedule H-2
Page 2
Witness: Kozoman

Size	Meter Classification	Month of Jan-01	Month of Feb-01	Month of Mar-01	Month of Apr-01	Month of May-01	Month of Jun-01	Month of Jul-01
5/8 Inch	Residential	398	397	398	400	401	402	403
1 Inch	Residential	17	17	17	17	18	19	19
1.5 Inch	Residential	1	1	1	1	1	1	1
2 Inch	Residential	1	1	1	1	1	1	1
3 Inch	Residential	1	1	1	2	1	1	1
5/8 Inch	Commercial	52	52	52	53	53	53	53
1 Inch	Commercial	9	9	9	9	10	10	10
1.5 Inch	Commercial	2	2	2	2	2	2	2
2 Inch	Commercial	2	2	2	2	2	2	2
3 Inch	Commercial	-	-	-	-	-	-	-

Totals

483	482	483	487	489	491	492
-----	-----	-----	-----	-----	-----	-----

Size	Meter Classification	Month of Aug-01	Month of Sep-01	Month of Oct-01	Month of Nov-01	Month of Dec-01	Change from Beginning of Year to	Revenues Annual- ized
5/8 Inch	Residential	402	402	405	403	403	5	Yes
1 Inch	Residential	19	19	19	19	19	2	Yes
1.5 Inch	Residential	1	1	1	1	1	-	No
2 Inch	Residential	1	1	1	1	1	-	No
3 Inch	Residential	1	1	1	1	1	-	No
5/8 Inch	Commercial	53	53	54	54	54	2	Yes
1 Inch	Commercial	10	10	10	10	10	1	Yes
1.5 Inch	Commercial	2	2	2	2	2	-	No
2 Inch	Commercial	2	2	2	2	2	-	No
3 Inch	Commercial	1	1	1	2	1	1	Yes
		-	-	-	-	-	-	No
		-	-	-	-	-	-	No
Totals		492	492	496	495	494	11	

Arizona American - Tubac
Present and Proposed Rates
Test Year Ended December 31, 2001

Exhibit
Schedule H-3
Page 1
Witness: Kozoman

Line No.	Customer Classification and Meter Size	Present Rates	Proposed Rates	Percent Change
1	Percentage Increase in Monthly Minimums			
2	Percentage Increase in Commodity Rates			
3				
4	Monthly Usage Charge for:			
5	<u>Residential, Commercial</u>			
6	5/8 x 3/4 Inch (a)	\$ 15.35	\$ 31.54	105.47%
7	3/4 Inch (a)	15.35	31.54	105.47%
8	1 Inch	23.00	47.26	105.47%
9	1 1/2 Inch	46.00	94.52	105.47%
10	2 Inch	76.00	156.16	105.47%
11	3 Inch	90.00	184.92	105.47%
12	4 Inch	132.00	271.22	105.47%
13	6 Inch	180.00	369.85	105.47%
14	8 Inch	N/A	3,154.00	
15				
16				
17	<u>Gallons In Minimum</u>			
18	All	-	-	
19				
20	<u>Tier 1: Gallons upper limit</u>			
21	All	8,000	8,000	
22	<u>Tier 2: (Gallon upper limit, up to, but not exceeding)</u>			
23	All	999,999,999	999,999,999	
24	<u>Tier 3: (Gallon over)</u>			
25	All	999,999,999	999,999,999	
26	<u>Commodity Rates (per 1,000 gallons over minimum and/or per Tier)</u>			
27	All (a) Tier 1	\$ 1.66	\$ 3.41	105.42%
28	All (a) Tier 2	2.04	4.19	105.39%
29	All (a) Tier 3	2.04	4.19	105.39%
30	All (a) Tier 4			
31				
32	(a) Rounded to nearest whole cent			
33	In addition to above rates, Company will also collect groundwater withdrawal assessment.			

Arizona American - Tubac
Changes in Representative Rate Schedules
Test Year Ended December 31, 2001

Exhibit
Schedule H-3
Page 2
Witness: Kozoman

Line No.	Other Service Charges	Present Rates	Proposed Rates
1	Establishment	\$ 30.00	\$ 30.00
2	Establishment (After Hours)	\$ 40.00	\$ 40.00
3	Reconnection (Delinquent)		
4	Reconnection (After Hours)		
5	Meter Test	\$ 10.00	\$ 10.00
6	Deposit	**	**
7	Deposit Interest	**	**
8	Re-Establishment (With-in 12 Months)	***	***
9			
10	NSF Check	\$ 10.00	\$ 10.00
11	Deferred Payment, Per Month (b)		
12	Meter Re-Read	\$ 5.00	5.00
13	Charge of Moving Customer Meter -		
14	Customer Requested	Cost	Cost
15	Late Payment Charge, greater of 1.50% or	\$ 5.00	\$ 5.00 (1)
16	Damages to Meter Locks, Valves, Seals	Cost	Cost (2)
17	Sprinklers	(a)	(a)
18	(1) Greater of 1.50% or \$5.00 Present Rates or 1.5% or \$10.00 Proposed Rates.		
19	(2) \$40.00 plus actual cost of making repairs.		
20	** PER COMMISSION RULES (R14-2-403.B)		
21	*** MONTHS OFF SYSTEM TIMES MINIMUM (R14-2-403.D)		
22	IN ADDITION TO THE COLLECTION OF REGULAR RATES, THE UTILITY WILL COLLECT FROM		
23	ITS CUSTOMERS A PROPORTIONATE SHARE OF ANY PRIVILEGE, SALES, USE, AND FRANCHISE		
24	TAX. PER COMMISSION RULE (14-2-409.D 5)		
25	ALL ADVANCES AND/OR CONTRIBUTIONS ARE TO INCLUDE LABOR, MATERIALS, OVERHEADS,		
26	AND ALL APPLICABLE TAXES, INCLUDING ALL GROSS-UP TAXES FOR INCOME TAXES.		
27	(a) 1.00% of the monthly minimum for a comparable sized meter connection, but no less than \$5		
28	per month.		
29	<u>Present Charges</u>		
30	Service Charges		
31	Installation of		
32	<u>Meter Size</u>	<u>Ser. Line</u> <u>Meter</u>	<u>Proposed Charges</u>
33	5/8 x 3/4 Inch	\$ 255.00 \$ 65.00	\$500
34	3 / 4 Inch	\$ 255.00 \$ 105.00	\$575
35	1 Inch	\$ 275.00 \$ 145.00	\$600
36	1 1/2 Inch	\$ 290.00 \$ 345.00	\$900
37	2 Inch	\$ 315.00 \$ 775.00	\$2,220
38	3 Inch	Cost Cost	Cost
39	4 Inch	Cost Cost	Cost
40	6 Inch	Cost Cost	Cost
41	8 Inch	Cost Cost	Cost
42	Meters Larger than 8"	Cost Cost	Cost
43			
44	Company will not accept applications for 3/4" meters after May 1, 1997. Meter Size is obsolete.		
45			
46	As meters and service lines are now taxable income for income purposes, The Company		
47	shall collect income taxes on the meter and service line charges.		
48	Any tax collected will be refunded each year that the meter deposit is refunded.		

Arizona American - Tubac
 Bill Comparison
 Customer Classification

TWRE 5/8 Inch

Exhibit
 Schedule H-4
 Page 1
 Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 15.35	\$ 31.54	\$ 16.19	105.47%
1,000	17.01	34.95	\$ 17.94	105.47%
2,000	18.67	38.36	\$ 19.69	105.46%
3,000	20.33	41.77	\$ 21.44	105.46%
4,000	21.99	45.18	\$ 23.19	105.46%
5,000	23.65	48.59	\$ 24.94	105.45%
6,000	25.31	52.00	\$ 26.69	105.45%
7,000	26.97	55.41	\$ 28.44	105.45%
8,000	28.63	58.82	\$ 30.19	105.45%
9,000	30.67	63.01	\$ 32.34	105.45%
10,000	32.71	67.20	\$ 34.49	105.44%
11,000	34.75	71.39	\$ 36.64	105.44%
12,000	36.79	75.58	\$ 38.79	105.44%
13,000	38.83	79.77	\$ 40.94	105.43%
14,000	40.87	83.96	\$ 43.09	105.43%
15,000	42.91	88.15	\$ 45.24	105.43%
16,000	44.95	92.34	\$ 47.39	105.43%
17,000	46.99	96.53	\$ 49.54	105.43%
18,000	49.03	100.72	\$ 51.69	105.43%
19,000	51.07	104.91	\$ 53.84	105.42%
20,000	53.11	109.10	\$ 55.99	105.42%
21,000	55.15	113.29	\$ 58.14	105.42%
22,000	57.19	117.48	\$ 60.29	105.42%
23,000	59.23	121.67	\$ 62.44	105.42%
24,000	61.27	125.86	\$ 64.59	105.42%
25,000	63.31	130.05	\$ 66.74	105.42%
26,000	65.35	134.24	\$ 68.89	105.42%
27,000	67.39	138.43	\$ 71.04	105.42%
28,000	69.43	142.62	\$ 73.19	105.42%
29,000	71.47	146.81	\$ 75.34	105.41%
30,000	73.51	151.00	\$ 77.49	105.41%
31,000	75.55	155.19	\$ 79.64	105.41%
Average Usage				
13,177	\$ 39.19	\$ 80.51	\$ 41.32	105.43%
Median Usage				
8,000	\$ 28.63	\$ 58.82	\$ 30.19	105.45%

Present Rates:

Monthly Minimum:	\$ 15.35
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04
	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 31.54
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 3.41
Up to 999,999,999	\$ 4.19
Over 1,000,000,000	\$ 4.19
	\$ 4.19

Arizona American - Tubac
 Bill Comparison
 Customer Classification

TWRE 1 Inch

Exhibit
 Schedule H-4
 Page 2
 Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 23.00	\$ 47.26	\$ 24.26	105.47%
1,000	24.66	50.67	\$ 26.01	105.47%
2,000	26.32	54.08	\$ 27.76	105.47%
3,000	27.98	57.49	\$ 29.51	105.46%
4,000	29.64	60.90	\$ 31.26	105.46%
5,000	31.30	64.31	\$ 33.01	105.46%
6,000	32.96	67.72	\$ 34.76	105.46%
7,000	34.62	71.13	\$ 36.51	105.45%
8,000	36.28	74.54	\$ 38.26	105.45%
9,000	38.32	78.73	\$ 40.41	105.45%
10,000	40.36	82.92	\$ 42.56	105.45%
11,000	42.40	87.11	\$ 44.71	105.44%
12,000	44.44	91.30	\$ 46.86	105.44%
13,000	46.48	95.49	\$ 49.01	105.44%
14,000	48.52	99.68	\$ 51.16	105.44%
15,000	50.56	103.87	\$ 53.31	105.44%
16,000	52.60	108.06	\$ 55.46	105.43%
17,000	54.64	112.25	\$ 57.61	105.43%
18,000	56.68	116.44	\$ 59.76	105.43%
19,000	58.72	120.63	\$ 61.91	105.43%
20,000	60.76	124.82	\$ 64.06	105.43%
21,000	62.80	129.01	\$ 66.21	105.43%
22,000	64.84	133.20	\$ 68.36	105.43%
23,000	66.88	137.39	\$ 70.51	105.43%
24,000	68.92	141.58	\$ 72.66	105.42%
25,000	70.96	145.77	\$ 74.81	105.42%
26,000	73.00	149.96	\$ 76.96	105.42%
27,000	75.04	154.15	\$ 79.11	105.42%
28,000	77.08	158.34	\$ 81.26	105.42%
29,000	79.12	162.53	\$ 83.41	105.42%
30,000	81.16	166.72	\$ 85.56	105.42%
31,000	83.20	170.91	\$ 87.71	105.42%
32,000	85.24	175.10	\$ 89.86	105.42%
33,000	87.28	179.29	\$ 92.01	105.42%
Average Usage				
15,301	\$ 51.17	\$ 105.13	\$ 53.96	105.44%
Median Usage				
12,000	\$ 44.44	\$ 91.30	\$ 46.86	105.44%

Present Rates:

Monthly Minimum:	\$ 23.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04
	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 47.26
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 3.41
Up to 999,999,999	\$ 4.19
Over 1,000,000,000	\$ 4.19
	\$ 4.19

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 46.00	\$ 94.52	\$ 48.52	105.47%
1,000	47.66	97.93	\$ 50.27	105.47%
2,000	49.32	101.34	\$ 52.02	105.47%
3,000	50.98	104.75	\$ 53.77	105.47%
4,000	52.64	108.16	\$ 55.52	105.47%
5,000	54.30	111.57	\$ 57.27	105.46%
6,000	55.96	114.98	\$ 59.02	105.46%
7,000	57.62	118.39	\$ 60.77	105.46%
8,000	59.28	121.80	\$ 62.52	105.46%
9,000	61.32	125.99	\$ 64.67	105.46%
10,000	63.36	130.18	\$ 66.82	105.46%
11,000	65.40	134.37	\$ 68.97	105.45%
12,000	67.44	138.56	\$ 71.12	105.45%
13,000	69.48	142.75	\$ 73.27	105.45%
14,000	71.52	146.94	\$ 75.42	105.45%
15,000	73.56	151.13	\$ 77.57	105.45%
16,000	75.60	155.32	\$ 79.72	105.45%
17,000	77.64	159.51	\$ 81.87	105.44%
18,000	79.68	163.70	\$ 84.02	105.44%
19,000	81.72	167.89	\$ 86.17	105.44%
41,000	126.60	260.07	\$ 133.47	105.42%
42,000	128.64	264.26	\$ 135.62	105.42%
43,000	130.68	268.45	\$ 137.77	105.42%
44,000	132.72	272.64	\$ 139.92	105.42%
45,000	134.76	276.83	\$ 142.07	105.42%
46,000	136.80	281.02	\$ 144.22	105.42%
47,000	138.84	285.21	\$ 146.37	105.42%
48,000	140.88	289.40	\$ 148.52	105.42%
49,000	142.92	293.59	\$ 150.67	105.42%
50,000	144.96	297.78	\$ 152.82	105.42%
Average Usage				
40,250	\$ 125.07	\$ 256.92	\$ 131.85	105.42%
Median Usage				
24,000	\$ 91.92	\$ 188.84	\$ 96.92	105.44%

Present Rates:

Monthly Minimum:	\$ 46.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 94.52
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 3.41
Up to 999,999,999	\$ 4.19
Over 1,000,000,000	\$ 4.19

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 76.00	\$ 156.16	\$ 80.16	105.47%
1,000	77.66	159.57	\$ 81.91	105.47%
2,000	79.32	162.98	\$ 83.66	105.47%
3,000	80.98	166.39	\$ 85.41	105.47%
4,000	82.64	169.80	\$ 87.16	105.47%
5,000	84.30	173.21	\$ 88.91	105.47%
6,000	85.96	176.62	\$ 90.66	105.47%
7,000	87.62	180.03	\$ 92.41	105.46%
8,000	89.28	183.44	\$ 94.16	105.46%
9,000	91.32	187.63	\$ 96.31	105.46%
10,000	93.36	191.82	\$ 98.46	105.46%
11,000	95.40	196.01	\$ 100.61	105.46%
12,000	97.44	200.20	\$ 102.76	105.46%
13,000	99.48	204.39	\$ 104.91	105.46%
14,000	101.52	208.58	\$ 107.06	105.46%
15,000	103.56	212.77	\$ 109.21	105.45%
16,000	105.60	216.96	\$ 111.36	105.45%
17,000	107.64	221.15	\$ 113.51	105.45%
18,000	109.68	225.34	\$ 115.66	105.45%
19,000	111.72	229.53	\$ 117.81	105.45%
20,000	113.76	233.72	\$ 119.96	105.45%
48,000	170.88	351.04	\$ 180.16	105.43%
49,000	172.92	355.23	\$ 182.31	105.43%
50,000	174.96	359.42	\$ 184.46	105.43%
51,000	177.00	363.61	\$ 186.61	105.43%
52,000	179.04	367.80	\$ 188.76	105.43%
53,000	181.08	371.99	\$ 190.91	105.43%
54,000	183.12	376.18	\$ 193.06	105.43%
Average Usage				
32,500	\$ 139.26	\$ 286.09	\$ 146.83	105.44%
Median Usage				
30,000	\$ 134.16	\$ 275.62	\$ 141.46	105.44%

Present Rates:

Monthly Minimum:	\$ 76.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 156.16
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 3.41
Up to 999,999,999	\$ 4.19
Over 1,000,000,000	\$ 4.19

<u>Usage</u>	<u>Present</u> <u>Bill</u>	<u>Proposed</u> <u>Bill</u>	<u>Dollar</u> <u>Increase</u>	<u>Percent</u> <u>Increase</u>
-	\$ 90.00	\$ 184.92	\$ 94.92	105.47%
1,000	91.66	188.33	\$ 96.67	105.47%
2,000	93.32	191.74	\$ 98.42	105.47%
3,000	94.98	195.15	\$ 100.17	105.47%
4,000	96.64	198.56	\$ 101.92	105.47%
5,000	98.30	201.97	\$ 103.67	105.47%
6,000	99.96	205.38	\$ 105.42	105.47%
7,000	101.62	208.79	\$ 107.17	105.47%
8,000	103.28	212.20	\$ 108.92	105.46%
9,000	105.32	216.39	\$ 111.07	105.46%
10,000	107.36	220.58	\$ 113.22	105.46%
11,000	109.40	224.77	\$ 115.37	105.46%
12,000	111.44	228.96	\$ 117.52	105.46%
13,000	113.48	233.15	\$ 119.67	105.46%
14,000	115.52	237.34	\$ 121.82	105.46%
15,000	117.56	241.53	\$ 123.97	105.46%
16,000	119.60	245.72	\$ 126.12	105.46%
17,000	121.64	249.91	\$ 128.27	105.45%
18,000	123.68	254.10	\$ 130.42	105.45%
19,000	125.72	258.29	\$ 132.57	105.45%
20,000	127.76	262.48	\$ 134.72	105.45%
21,000	129.80	266.67	\$ 136.87	105.45%
22,000	131.84	270.86	\$ 139.02	105.45%

Average Usage				
3,538	\$ 95.87	\$ 196.99	\$ 101.12	105.47%
Median Usage				
-	\$ 90.00	\$ 184.92	\$ 94.92	105.47%

Present Rates:

Monthly Minimum:	\$ 90.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 184.92
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 3.41
Up to 999,999,999	\$ 4.19
Over 1,000,000,000	\$ 4.19

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 15.35	\$ 31.54	\$ 16.19	105.47%
1,000	17.01	34.95	\$ 17.94	105.47%
2,000	18.67	38.36	\$ 19.69	105.46%
3,000	20.33	41.77	\$ 21.44	105.46%
4,000	21.99	45.18	\$ 23.19	105.46%
5,000	23.65	48.59	\$ 24.94	105.45%
6,000	25.31	52.00	\$ 26.69	105.45%
7,000	26.97	55.41	\$ 28.44	105.45%
8,000	28.63	58.82	\$ 30.19	105.45%
9,000	30.67	63.01	\$ 32.34	105.45%
10,000	32.71	67.20	\$ 34.49	105.44%
11,000	34.75	71.39	\$ 36.64	105.44%
12,000	36.79	75.58	\$ 38.79	105.44%
13,000	38.83	79.77	\$ 40.94	105.43%
14,000	40.87	83.96	\$ 43.09	105.43%
15,000	42.91	88.15	\$ 45.24	105.43%
16,000	44.95	92.34	\$ 47.39	105.43%
17,000	46.99	96.53	\$ 49.54	105.43%
18,000	49.03	100.72	\$ 51.69	105.43%
19,000	51.07	104.91	\$ 53.84	105.42%
20,000	53.11	109.10	\$ 55.99	105.42%
21,000	55.15	113.29	\$ 58.14	105.42%
22,000	57.19	117.48	\$ 60.29	105.42%
23,000	59.23	121.67	\$ 62.44	105.42%
24,000	61.27	125.86	\$ 64.59	105.42%
25,000	63.31	130.05	\$ 66.74	105.42%
26,000	65.35	134.24	\$ 68.89	105.42%
27,000	67.39	138.43	\$ 71.04	105.42%
28,000	69.43	142.62	\$ 73.19	105.42%
29,000	71.47	146.81	\$ 75.34	105.41%
30,000	73.51	151.00	\$ 77.49	105.41%
31,000	75.55	155.19	\$ 79.64	105.41%
32,000	77.59	159.38	\$ 81.79	105.41%
33,000	79.63	163.57	\$ 83.94	105.41%
34,000	81.67	167.76	\$ 86.09	105.41%
Average Usage				
9,090	\$ 30.85	\$ 63.39	\$ 32.53	105.44%
Median Usage				
5,000	\$ 23.65	\$ 48.59	\$ 24.94	105.45%

Present Rates:

Monthly Minimum:	\$ 15.35
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04
	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 31.54
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 3.41
Up to 999,999,999	\$ 4.19
Over 1,000,000,000	\$ 4.19
	\$ 4.19

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 23.00	\$ 47.26	\$ 24.26	105.47%
1,000	24.66	50.67	\$ 26.01	105.47%
2,000	26.32	54.08	\$ 27.76	105.47%
3,000	27.98	57.49	\$ 29.51	105.46%
4,000	29.64	60.90	\$ 31.26	105.46%
5,000	31.30	64.31	\$ 33.01	105.46%
6,000	32.96	67.72	\$ 34.76	105.46%
7,000	34.62	71.13	\$ 36.51	105.45%
8,000	36.28	74.54	\$ 38.26	105.45%
9,000	38.32	78.73	\$ 40.41	105.45%
10,000	40.36	82.92	\$ 42.56	105.45%
11,000	42.40	87.11	\$ 44.71	105.44%
12,000	44.44	91.30	\$ 46.86	105.44%
13,000	46.48	95.49	\$ 49.01	105.44%
14,000	48.52	99.68	\$ 51.16	105.44%
15,000	50.56	103.87	\$ 53.31	105.44%
16,000	52.60	108.06	\$ 55.46	105.43%
17,000	54.64	112.25	\$ 57.61	105.43%
18,000	56.68	116.44	\$ 59.76	105.43%
19,000	58.72	120.63	\$ 61.91	105.43%
20,000	60.76	124.82	\$ 64.06	105.43%
21,000	62.80	129.01	\$ 66.21	105.43%
22,000	64.84	133.20	\$ 68.36	105.43%
23,000	66.88	137.39	\$ 70.51	105.43%
24,000	68.92	141.58	\$ 72.66	105.42%
25,000	70.96	145.77	\$ 74.81	105.42%
26,000	73.00	149.96	\$ 76.96	105.42%
27,000	75.04	154.15	\$ 79.11	105.42%
28,000	77.08	158.34	\$ 81.26	105.42%
29,000	79.12	162.53	\$ 83.41	105.42%
30,000	81.16	166.72	\$ 85.56	105.42%
31,000	83.20	170.91	\$ 87.71	105.42%
32,000	85.24	175.10	\$ 89.86	105.42%
33,000	87.28	179.29	\$ 92.01	105.42%
34,000	89.32	183.48	\$ 94.16	105.42%
35,000	91.36	187.67	\$ 96.31	105.42%
36,000	93.40	191.86	\$ 98.46	105.42%
37,000	95.44	196.05	\$ 100.61	105.42%
38,000	97.48	200.24	\$ 102.76	105.41%
39,000	99.52	204.43	\$ 104.91	105.41%
40,000	101.56	208.62	\$ 107.06	105.41%
Average Usage				
19,172	\$ 59.07	\$ 121.35	\$ 62.28	105.43%
Median Usage				
8,000	\$ 36.28	\$ 74.54	\$ 38.26	105.45%

Present Rates:

Monthly Minimum:	\$ 23.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04
	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 47.26
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 3.41
Up to 999,999,999	\$ 4.19
Over 1,000,000,000	\$ 4.19
	\$ 4.19

Arizona American - Tubac
Bill Comparison
Customer Classification

TWCL 1.5 Inch

Exhibit
Schedule H-4
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Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 46.00	\$ 94.52	\$ 48.52	105.47%
1,000	47.66	97.93	\$ 50.27	105.47%
2,000	49.32	101.34	\$ 52.02	105.47%
3,000	50.98	104.75	\$ 53.77	105.47%
4,000	52.64	108.16	\$ 55.52	105.47%
5,000	54.30	111.57	\$ 57.27	105.46%
6,000	55.96	114.98	\$ 59.02	105.46%
7,000	57.62	118.39	\$ 60.77	105.46%
8,000	59.28	121.80	\$ 62.52	105.46%
9,000	61.32	125.99	\$ 64.67	105.46%
10,000	63.36	130.18	\$ 66.82	105.46%
11,000	65.40	134.37	\$ 68.97	105.45%
12,000	67.44	138.56	\$ 71.12	105.45%
13,000	69.48	142.75	\$ 73.27	105.45%
14,000	71.52	146.94	\$ 75.42	105.45%
15,000	73.56	151.13	\$ 77.57	105.45%
16,000	75.60	155.32	\$ 79.72	105.45%
17,000	77.64	159.51	\$ 81.87	105.44%
18,000	79.68	163.70	\$ 84.02	105.44%
19,000	81.72	167.89	\$ 86.17	105.44%
20,000	83.76	172.08	\$ 88.32	105.44%
21,000	85.80	176.27	\$ 90.47	105.44%
22,000	87.84	180.46	\$ 92.62	105.44%
23,000	89.88	184.65	\$ 94.77	105.44%
24,000	91.92	188.84	\$ 96.92	105.44%
25,000	93.96	193.03	\$ 99.07	105.44%
26,000	96.00	197.22	\$ 101.22	105.43%
27,000	98.04	201.41	\$ 103.37	105.43%
28,000	100.08	205.60	\$ 105.52	105.43%
29,000	102.12	209.79	\$ 107.67	105.43%
30,000	104.16	213.98	\$ 109.82	105.43%
31,000	106.20	218.17	\$ 111.97	105.43%
32,000	108.24	222.36	\$ 114.12	105.43%
33,000	110.28	226.55	\$ 116.27	105.43%
34,000	112.32	230.74	\$ 118.42	105.43%
35,000	114.36	234.93	\$ 120.57	105.43%
36,000	116.40	239.12	\$ 122.72	105.43%
37,000	118.44	243.31	\$ 124.87	105.43%
38,000	120.48	247.50	\$ 127.02	105.43%
39,000	122.52	251.69	\$ 129.17	105.43%
40,000	124.56	255.88	\$ 131.32	105.42%
41,000	126.60	260.07	\$ 133.47	105.42%
Average Usage				
35,167	\$ 114.70	\$ 235.63	\$ 120.93	105.43%
Median Usage				
26,000	\$ 96.00	\$ 197.22	\$ 101.22	105.43%

Present Rates:

Monthly Minimum:	\$ 46.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 94.52
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 3.41
Up to 999,999,999	\$ 4.19
Over 1,000,000,000	\$ 4.19

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 76.00	\$ 156.16	\$ 80.16	105.47%
1,000	77.66	159.57	\$ 81.91	105.47%
2,000	79.32	162.98	\$ 83.66	105.47%
3,000	80.98	166.39	\$ 85.41	105.47%
4,000	82.64	169.80	\$ 87.16	105.47%
5,000	84.30	173.21	\$ 88.91	105.47%
6,000	85.96	176.62	\$ 90.66	105.47%
7,000	87.62	180.03	\$ 92.41	105.46%
8,000	89.28	183.44	\$ 94.16	105.46%
9,000	91.32	187.63	\$ 96.31	105.46%
10,000	93.36	191.82	\$ 98.46	105.46%
11,000	95.40	196.01	\$ 100.61	105.46%
12,000	97.44	200.20	\$ 102.76	105.46%
13,000	99.48	204.39	\$ 104.91	105.46%
14,000	101.52	208.58	\$ 107.06	105.46%
15,000	103.56	212.77	\$ 109.21	105.45%
16,000	105.60	216.96	\$ 111.36	105.45%
17,000	107.64	221.15	\$ 113.51	105.45%
18,000	109.68	225.34	\$ 115.66	105.45%
19,000	111.72	229.53	\$ 117.81	105.45%
20,000	113.76	233.72	\$ 119.96	105.45%
21,000	115.80	237.91	\$ 122.11	105.45%
22,000	117.84	242.10	\$ 124.26	105.45%
23,000	119.88	246.29	\$ 126.41	105.45%
24,000	121.92	250.48	\$ 128.56	105.44%
284,000	652.32	1,339.88	\$ 687.56	105.40%
301,000	687.00	1,411.11	\$ 724.11	105.40%
317,000	719.64	1,478.15	\$ 758.51	105.40%
345,000	776.76	1,595.47	\$ 818.71	105.40%
330,000	746.16	1,532.62	\$ 786.46	105.40%
344,000	774.72	1,591.28	\$ 816.56	105.40%
319,000	723.72	1,486.53	\$ 762.81	105.40%
253,000	589.08	1,209.99	\$ 620.91	105.40%
336,000	758.40	1,557.76	\$ 799.36	105.40%
202,000	485.04	996.30	\$ 511.26	105.41%
273,000	629.88	1,293.79	\$ 663.91	105.40%
289,000	662.52	1,360.83	\$ 698.31	105.40%
Average Usage				
159,167	\$ 397.66	\$ 816.83	\$ 419.17	105.41%
Median Usage				
29,000	\$ 132.12	\$ 271.43	\$ 139.31	105.44%

Present Rates:

Monthly Minimum:	\$ 76.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 156.16
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 3.41
Up to 999,999,999	\$ 4.19
Over 1,000,000,000	\$ 4.19

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 90.00	\$ 184.92	\$ 94.92	105.47%
1,000	91.66	188.33	\$ 96.67	105.47%
2,000	93.32	191.74	\$ 98.42	105.47%
3,000	94.98	195.15	\$ 100.17	105.47%
4,000	96.64	198.56	\$ 101.92	105.47%
5,000	98.30	201.97	\$ 103.67	105.47%
6,000	99.96	205.38	\$ 105.42	105.47%
7,000	101.62	208.79	\$ 107.17	105.47%
8,000	103.28	212.20	\$ 108.92	105.46%
9,000	105.32	216.39	\$ 111.07	105.46%
10,000	107.36	220.58	\$ 113.22	105.46%
11,000	109.40	224.77	\$ 115.37	105.46%
12,000	111.44	228.96	\$ 117.52	105.46%
13,000	113.48	233.15	\$ 119.67	105.46%
14,000	115.52	237.34	\$ 121.82	105.46%
15,000	117.56	241.53	\$ 123.97	105.46%
16,000	119.60	245.72	\$ 126.12	105.46%
17,000	121.64	249.91	\$ 128.27	105.45%
18,000	123.68	254.10	\$ 130.42	105.45%
19,000	125.72	258.29	\$ 132.57	105.45%
20,000	127.76	262.48	\$ 134.72	105.45%
21,000	129.80	266.67	\$ 136.87	105.45%
22,000	131.84	270.86	\$ 139.02	105.45%
23,000	133.88	275.05	\$ 141.17	105.45%
24,000	135.92	279.24	\$ 143.32	105.45%
25,000	137.96	283.43	\$ 145.47	105.45%
26,000	140.00	287.62	\$ 147.62	105.45%
27,000	142.04	291.81	\$ 149.77	105.45%
28,000	144.08	296.00	\$ 151.92	105.44%
29,000	146.12	300.19	\$ 154.07	105.44%
30,000	148.16	304.38	\$ 156.22	105.44%
31,000	150.20	308.57	\$ 158.37	105.44%
Average Usage				
22,833	\$ 133.54	\$ 274.36	\$ 140.82	105.45%
Median Usage				
6,000	\$ 99.96	\$ 205.38	\$ 105.42	105.47%

Present Rates:

Monthly Minimum:
 Gallons in Minimum
 Charge Per 1,000 Gallons
 Up to 8,000
 Up to 999,999,999
 Over 1,000,000,000

Proposed Rates:

Monthly Minimum:
 Gallons in Minimum
 Charge Per 1,000 Gallons
 Up to 8,000
 Up to 999,999,999
 Over 1,000,000,000

Step-One Rate Increase

Arizona American - Tubac

Revenue Summary

With Annualized Revenues to Year End Number of Customers

Test Year Ended December 31, 2001

Step-One Rate Increase

Exhibit

Schedule H-1

Page 1

Witness: Kozoman

Line No.	Meter Size	Customer Classification	Present Revenues	Proposed Revenues	Dollar Change	Percent Change	Percent of Present Water Revenues	Percent of Proposed Water Revenues
1	5/8 Inch Residential		\$ 192,378	\$ 269,354	\$ 76,975	40.01%	76.54%	76.77%
2	1 Inch Residential		11,339	15,877	4,538	40.02%	4.51%	4.53%
3	1.5 Inch Residential		1,501	2,102	602	40.08%	0.60%	0.60%
4	2 Inch Residential		1,671	2,340	669	40.05%	0.66%	0.67%
5	3 Inch Residential		1,255	1,757	502	40.00%	0.50%	0.50%
6								
7	5/8 Inch Commercial		20,444	28,621	8,177	40.00%	8.13%	8.16%
8	1 Inch Commercial		6,953	9,738	2,785	40.05%	2.77%	2.78%
9	1.5 Inch Commercial		2,753	3,856	1,103	40.07%	1.10%	1.10%
10	2 Inch Commercial		9,544	13,375	3,831	40.14%	3.80%	3.81%
11	3 Inch Commercial		807	1,131	323	40.04%	0.32%	0.32%
12	Miscellaneous Revenues		2,691	2,691	-	0.00%	1.07%	0.77%
13								
14	Total Water Revenues		\$ 251,336	\$ 350,841	\$ 99,505	39.59%	100.00%	100.00%
15							Additional	
16							Gallons	
17	Revenue Annualization (a)						Billings	in 1,000's
18	5/8 Inch Residential		\$ 738	\$ 1,032	295	39.93%	22	229
19	1 Inch Residential		370	518	148	39.95%	9	93
20	5/8 Inch Commercial		350	489	140	39.90%	12	109
21	1 Inch Commercial		218	305	87	40.01%	4	229
22	3 Inch Commercial		801	1,122	321	40.02%	6	137
23	Total Revenue Annualization		2,476	3,466	990	39.97%		
24	Total Water Revenues with							
25	Revenue Annualization		\$ 253,812	\$ 354,307	100,495	39.59%	53	797
26								
27								

(a) Customer Growth Annualization is calculated by computing the change in the number of customers by month from the beginning of the year to the end of the year, and them multiplying the additional customers times the average revenue revenue for that month.

Arizona American - Tubac
 Analysis of Revenue by Detailed Class
 Test Year Ended December 31, 2001
Step-One Rate Increase

Exhibit
 Schedule H-2
 Page 1
 Witness: Kozoman

		(a)									
Line No.	Customer Classification and/or Meter Size	(a)		Average Consumption	Revenues		Proposed Increase		Percent	Amount	Percent
		Average Number of Customers at 12/31/01			Present Rates	Proposed Rates	Dollar Amount				
1	5/8 Inch Residential	401		13,177	\$ 39.19	\$ 54.86	15.67		39.97%		
2	1 Inch Residential	18		15,301	51.17	71.64	20.47		39.99%		
3	1.5 Inch Residential	1		40,250	125.07	175.20	50.13		40.08%		
4	2 Inch Residential	1		32,500	139.26	195.03	55.77		40.05%		
5	3 Inch Residential	1		-	-	-	-		0.00%		
6											
7	5/8 Inch Commercial	53		9,090	30.85	43.17	12.31		39.91%		
8	1 Inch Commercial	10		19,172	59.07	82.71	23.64		40.02%		
9	1.5 Inch Commercial	2		35,167	114.70	160.66	45.96		40.07%		
10	2 Inch Commercial	2		159,167	397.66	557.30	159.64		40.14%		
11	3 Inch Commercial	1		22,833	133.54	186.98	53.44		40.02%		
12											
13	Totals	490									
14											
15	Actual Year End Number of Customers:	494									
16											
17											

(a) Average number of customers of less than one (1), indicates that less than 12 bills were issued during the year.

Arizona American - Tubac
Customer Count Summary
Test Year Ended December 31, 2001
Step-One Rate Increase

Exhibit
Schedule H-2
Page 2
Witness: Kozoman

<u>Size</u>	<u>Meter Classification</u>	Month of <u>Jan-01</u>	Month of <u>Feb-01</u>	Month of <u>Mar-01</u>	Month of <u>Apr-01</u>	Month of <u>May-01</u>	Month of <u>Jun-01</u>	Month of <u>Jul-01</u>
5/8 Inch	Residential	398	397	398	400	401	402	403
1 Inch	Residential	17	17	17	17	18	19	19
1.5 Inch	Residential	1	1	1	1	1	1	1
2 Inch	Residential	1	1	1	1	1	1	1
3 Inch	Residential	1	1	1	2	1	1	1
5/8 Inch	Commercial	52	52	52	53	53	53	53
1 Inch	Commercial	9	9	9	9	10	10	10
1.5 Inch	Commercial	2	2	2	2	2	2	2
2 Inch	Commercial	2	2	2	2	2	2	2
3 Inch	Commercial	-	-	-	-	-	-	-
Totals		483	482	483	487	489	491	492

<u>Size</u>	<u>Meter Classification</u>	Month of <u>Aug-01</u>	Month of <u>Sep-01</u>	Month of <u>Oct-01</u>	Month of <u>Nov-01</u>	Month of <u>Dec-01</u>	Change from Beginning of Year to	Revenues Annual- ized
5/8 Inch	Residential	402	402	405	403	403	5	Yes
1 Inch	Residential	19	19	19	19	19	2	Yes
1.5 Inch	Residential	1	1	1	1	1	-	No
2 Inch	Residential	1	1	1	1	1	-	No
3 Inch	Residential	1	1	1	1	1	-	No
5/8 Inch	Commercial	53	53	54	54	54	2	Yes
1 Inch	Commercial	10	10	10	10	10	1	Yes
1.5 Inch	Commercial	2	2	2	2	2	-	No
2 Inch	Commercial	2	2	2	2	2	-	No
3 Inch	Commercial	1	1	1	2	1	1	Yes
		-	-	-	-	-	-	No
		-	-	-	-	-	-	No
Totals		492	492	496	495	494	11	

Total Water Actually Sold

Arizona American - Tubac
Present and Proposed Rates
Test Year Ended December 31, 2001
Step-One Rate Increase

Exhibit
Schedule H-3
Page 1
Witness: Kozoman

Line No.	Customer Classification and Meter Size	Present Rates	Proposed Rates	Percent Change
1	Percentage Increase in Monthly Minimums			
2	Percentage Increase in Commodity Rates			
3				
4	Monthly Usage Charge for:			
5	<u>Residential, Commercial</u>			
6	5/8 x 3/4 Inch	\$ 15.35	\$ 21.49	40.00%
7	3/4 Inch	15.35	21.49	40.00%
8	1 Inch	23.00	32.20	40.00%
9	1 1/2 Inch	46.00	64.40	40.00%
10	2 Inch	76.00	106.40	40.00%
11	3 Inch	90.00	126.00	40.00%
12	4 Inch	132.00	184.80	40.00%
13	6 Inch	180.00	252.00	40.00%
14				
15				
16				
17	<u>Gallons In Minimum</u>			
18	All	-	-	
19				
20	<u>Tier 1: Gallons upper limit</u>			
21	All	8,000	8,000	
22	<u>Tier 2: (Gallon upper limit, up to, but not exceeding)</u>			
23	All	999,999,999	999,999,999	
24	<u>Tier 3: (Gallon over)</u>			
25	All	999,999,999	999,999,999	
26	<u>Commodity Rates (per 1,000 gallons over minimum and per Tier)</u>			
27	All (a) Tier 1	\$ 1.66	\$ 2.32	39.76%
28	All (a) Tier 2	2.04	2.86	40.20%
29	All (a) Tier 3	2.04	2.86	40.20%
30	All (a) Tier 4	2.04	2.86	40.20%
31				
32	(a) Rounded to nearest whole cent			
33	In addition to above rates, Company will also collect groundwater withdrawal assessment.			

Arizona American - Tubac
Changes in Representative Rate Schedules
Test Year Ended December 31, 2001
Step-One Rate Increase

Exhibit
Schedule H-3
Page 2
Witness: Kozoman

Line No.	Other Service Charges	Present Rates	Proposed Rates
1	Establishment	\$ 30.00	\$ 30.00
2	Establishment (After Hours)	\$ 40.00	\$ 40.00
3	Reconnection (Delinquent)		
4	Reconnection (After Hours)		
5	Meter Test	\$ 10.00	\$ 10.00
6	Deposit	**	
7	Deposit Interest	**	
8	Re-Establishment (With-in 12 Months)	***	
9			
10	NSF Check	\$ 10.00	\$ 10.00
11	Deferred Payment, Per Month (b)		
12	Meter Re-Read	\$ 5.00	5.00
13	Charge of Moving Customer Meter -		
14	Customer Requested	Cost	Cost
15	Late Payment Charge, greater of 1.50% or	\$ 5.00	\$ 5.00 (1)
16	Damages to Meter Locks, Valves, Seals	Cost	Cost (2)
17	Sprinklers	(a)	(a)
18	(1) Greater of 1.50% or \$5.00 Present Rates or 1.5% or \$10.00 Proposed Rates.		
19	(2) \$40.00 plus actual cost of making repairs.		
20	** PER COMMISSION RULES (R14-2-403.B)		
21	*** MONTHS OFF SYSTEM TIMES MINIMUM (R14-2-403.D)		
22	IN ADDITION TO THE COLLECTION OF REGULAR RATES, THE UTILITY WILL COLLECT FROM		
23	ITS CUSTOMERS A PROPORTIONATE SHARE OF ANY PRIVILEGE, SALES, USE, AND FRANCHISE		
24	TAX. PER COMMISSION RULE (14-2-409.D 5)		
25	ALL ADVANCES AND/OR CONTRIBUTIONS ARE TO INCLUDE LABOR, MATERIALS, OVERHEADS,		
26	AND ALL APPLICABLE TAXES, INCLUDING ALL GROSS-UP TAXES FOR INCOME TAXES.		
27	(a) 1.00% of the monthly minimum for a comparable sized meter connection, but no less than \$5 per month		
28	<u>Present Charges</u>		
29	<u>Service Charges</u>		
30	<u>Installation of</u>		
31	<u>Meter Size</u>	<u>Ser. Line</u>	<u>Proposed</u>
32	5/8 x 3/4 Inch	\$ 255.00 \$ 65.00	<u>Charges</u>
33	3 / 4 Inch	\$ 255.00 \$ 105.00	\$500
34	1 Inch	\$ 275.00 \$ 145.00	\$575
35	1 1/2 Inch	\$ 290.00 \$ 345.00	\$600
36	2 Inch	\$ 315.00 \$ 775.00	\$900
37	3 Inch	Cost Cost	\$2,220
38	4 Inch	Cost Cost	Cost
39	6 Inch	Cost Cost	Cost
40	8 Inch	Cost Cost	Cost
41	Meters Larger than 8"	Cost Cost	Cost
42			
43	Company will not accept applications for 3/4" meters after May 1, 1997. Meter Size is obsolete.		
44			
45	As meters and service lines are now taxable income for income purposes, The Company		
46	shall collect income taxes on the meter and service line charges.		
47	Any tax collected will be refunded each year that the meter deposit is refunded.		

Arizona American - Tubac
 Bill Comparison
 Customer Classification
Step-One Rate Increase

TWRE 5/8 Inch

Exhibit
 Schedule H-4
 Page 1
 Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 15.35	\$ 21.49	\$ 6.14	40.00%
1,000	17.01	23.81	\$ 6.80	39.98%
2,000	18.67	26.13	\$ 7.46	39.96%
3,000	20.33	28.45	\$ 8.12	39.94%
4,000	21.99	30.77	\$ 8.78	39.93%
5,000	23.65	33.09	\$ 9.44	39.92%
6,000	25.31	35.41	\$ 10.10	39.91%
7,000	26.97	37.73	\$ 10.76	39.90%
8,000	28.63	40.05	\$ 11.42	39.89%
9,000	30.67	42.91	\$ 12.24	39.91%
10,000	32.71	45.77	\$ 13.06	39.93%
11,000	34.75	48.63	\$ 13.88	39.94%
12,000	36.79	51.49	\$ 14.70	39.96%
13,000	38.83	54.35	\$ 15.52	39.97%
14,000	40.87	57.21	\$ 16.34	39.98%
15,000	42.91	60.07	\$ 17.16	39.99%
16,000	44.95	62.93	\$ 17.98	40.00%
17,000	46.99	65.79	\$ 18.80	40.01%
18,000	49.03	68.65	\$ 19.62	40.02%
19,000	51.07	71.51	\$ 20.44	40.02%
20,000	53.11	74.37	\$ 21.26	40.03%
21,000	55.15	77.23	\$ 22.08	40.04%
22,000	57.19	80.09	\$ 22.90	40.04%
23,000	59.23	82.95	\$ 23.72	40.05%
24,000	61.27	85.81	\$ 24.54	40.05%
25,000	63.31	88.67	\$ 25.36	40.06%
26,000	65.35	91.53	\$ 26.18	40.06%
27,000	67.39	94.39	\$ 27.00	40.07%
28,000	69.43	97.25	\$ 27.82	40.07%
29,000	71.47	100.11	\$ 28.64	40.07%
30,000	73.51	102.97	\$ 29.46	40.08%
31,000	75.55	105.83	\$ 30.28	40.08%
Average Usage				
13,177	\$ 39.19	\$ 54.86	\$ 15.67	39.97%
Median Usage				
8,000	\$ 28.63	\$ 40.05	\$ 11.42	39.89%

Present Rates:

Monthly Minimum:
 Gallons in Minimum
 Charge Per 1,000 Gallons
 Up to 8,000
 Up to 999,999,999
 Over 1,000,000,000

Proposed Rates:

Monthly Minimum:
 Gallons in Minimum
 Charge Per 1,000 Gallons
 Up to 8,000
 Up to 999,999,999
 Over 1,000,000,000

Arizona American - Tubac
 Bill Comparison
 Customer Classification
Step-One Rate Increase

TWRE 1 Inch

Exhibit
 Schedule H-4
 Page 2
 Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 23.00	\$ 32.20	\$ 9.20	40.00%
1,000	24.66	34.52	\$ 9.86	39.98%
2,000	26.32	36.84	\$ 10.52	39.97%
3,000	27.98	39.16	\$ 11.18	39.96%
4,000	29.64	41.48	\$ 11.84	39.95%
5,000	31.30	43.80	\$ 12.50	39.94%
6,000	32.96	46.12	\$ 13.16	39.93%
7,000	34.62	48.44	\$ 13.82	39.92%
8,000	36.28	50.76	\$ 14.48	39.91%
9,000	38.32	53.62	\$ 15.30	39.93%
10,000	40.36	56.48	\$ 16.12	39.94%
11,000	42.40	59.34	\$ 16.94	39.95%
12,000	44.44	62.20	\$ 17.76	39.96%
13,000	46.48	65.06	\$ 18.58	39.97%
14,000	48.52	67.92	\$ 19.40	39.98%
15,000	50.56	70.78	\$ 20.22	39.99%
16,000	52.60	73.64	\$ 21.04	40.00%
17,000	54.64	76.50	\$ 21.86	40.01%
18,000	56.68	79.36	\$ 22.68	40.01%
19,000	58.72	82.22	\$ 23.50	40.02%
20,000	60.76	85.08	\$ 24.32	40.03%
21,000	62.80	87.94	\$ 25.14	40.03%
22,000	64.84	90.80	\$ 25.96	40.04%
23,000	66.88	93.66	\$ 26.78	40.04%
24,000	68.92	96.52	\$ 27.60	40.05%
25,000	70.96	99.38	\$ 28.42	40.05%
26,000	73.00	102.24	\$ 29.24	40.05%
27,000	75.04	105.10	\$ 30.06	40.06%
28,000	77.08	107.96	\$ 30.88	40.06%
29,000	79.12	110.82	\$ 31.70	40.07%
30,000	81.16	113.68	\$ 32.52	40.07%
31,000	83.20	116.54	\$ 33.34	40.07%
32,000	85.24	119.40	\$ 34.16	40.08%
33,000	87.28	122.26	\$ 34.98	40.08%
Average Usage				
15,301	\$ 51.17	\$ 71.64	\$ 20.47	39.99%
Median Usage				
12,000	\$ 44.44	\$ 62.20	\$ 17.76	39.96%

Present Rates:

Monthly Minimum:
 Gallons in Minimum
 Charge Per 1,000 Gallons
 Up to 8,000
 Up to 999,999,999
 Over 1,000,000,000

Proposed Rates:

Monthly Minimum:
 Gallons in Minimum
 Charge Per 1,000 Gallons
 Up to 8,000
 Up to 999,999,999
 Over 1,000,000,000

Arizona American - Tubac
 Bill Comparison
 Customer Classification
Step-One Rate Increase

TWRE 1.5 Inch

Exhibit
 Schedule H-4
 Page 3
 Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 46.00	\$ 64.40	\$ 18.40	40.00%
1,000	47.66	66.72	\$ 19.06	39.99%
2,000	49.32	69.04	\$ 19.72	39.98%
3,000	50.98	71.36	\$ 20.38	39.98%
4,000	52.64	73.68	\$ 21.04	39.97%
5,000	54.30	76.00	\$ 21.70	39.96%
6,000	55.96	78.32	\$ 22.36	39.96%
7,000	57.62	80.64	\$ 23.02	39.95%
8,000	59.28	82.96	\$ 23.68	39.95%
9,000	61.32	85.82	\$ 24.50	39.95%
10,000	63.36	88.68	\$ 25.32	39.96%
11,000	65.40	91.54	\$ 26.14	39.97%
12,000	67.44	94.40	\$ 26.96	39.98%
13,000	69.48	97.26	\$ 27.78	39.98%
14,000	71.52	100.12	\$ 28.60	39.99%
15,000	73.56	102.98	\$ 29.42	39.99%
16,000	75.60	105.84	\$ 30.24	40.00%
17,000	77.64	108.70	\$ 31.06	40.01%
18,000	79.68	111.56	\$ 31.88	40.01%
19,000	81.72	114.42	\$ 32.70	40.01%
41,000	126.60	177.34	\$ 50.74	40.08%
42,000	128.64	180.20	\$ 51.56	40.08%
43,000	130.68	183.06	\$ 52.38	40.08%
44,000	132.72	185.92	\$ 53.20	40.08%
45,000	134.76	188.78	\$ 54.02	40.09%
46,000	136.80	191.64	\$ 54.84	40.09%
47,000	138.84	194.50	\$ 55.66	40.09%
48,000	140.88	197.36	\$ 56.48	40.09%
49,000	142.92	200.22	\$ 57.30	40.09%
50,000	144.96	203.08	\$ 58.12	40.09%
Average Usage				
40,250	\$ 125.07	\$ 175.20	\$ 50.13	40.08%
Median Usage				
24,000	\$ 91.92	\$ 128.72	\$ 36.80	40.03%

Present Rates:

Monthly Minimum:	\$ 46.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04
	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 64.40
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 2.32
Up to 999,999,999	\$ 2.86
Over 1,000,000,000	\$ 2.86
	\$ 2.86

Arizona American - Tubac
 Bill Comparison
 Customer Classification
Step-One Rate Increase

TWRE 2 Inch

Exhibit
 Schedcule H-4
 Page 4
 Witness: Kozoman

<u>Usage</u>	<u>Present</u> <u>Bill</u>	<u>Proposed</u> <u>Bill</u>	<u>Dollar</u> <u>Increase</u>	<u>Percent</u> <u>Increase</u>
-	\$ 76.00	\$ 106.40	\$ 30.40	40.00%
1,000	77.66	108.72	\$ 31.06	39.99%
2,000	79.32	111.04	\$ 31.72	39.99%
3,000	80.98	113.36	\$ 32.38	39.99%
4,000	82.64	115.68	\$ 33.04	39.98%
5,000	84.30	118.00	\$ 33.70	39.98%
6,000	85.96	120.32	\$ 34.36	39.97%
7,000	87.62	122.64	\$ 35.02	39.97%
8,000	89.28	124.96	\$ 35.68	39.96%
9,000	91.32	127.82	\$ 36.50	39.97%
10,000	93.36	130.68	\$ 37.32	39.97%
11,000	95.40	133.54	\$ 38.14	39.98%
12,000	97.44	136.40	\$ 38.96	39.98%
13,000	99.48	139.26	\$ 39.78	39.99%
14,000	101.52	142.12	\$ 40.60	39.99%
15,000	103.56	144.98	\$ 41.42	40.00%
16,000	105.60	147.84	\$ 42.24	40.00%
17,000	107.64	150.70	\$ 43.06	40.00%
18,000	109.68	153.56	\$ 43.88	40.01%
19,000	111.72	156.42	\$ 44.70	40.01%
20,000	113.76	159.28	\$ 45.52	40.01%
48,000	170.88	239.36	\$ 68.48	40.07%
49,000	172.92	242.22	\$ 69.30	40.08%
50,000	174.96	245.08	\$ 70.12	40.08%
51,000	177.00	247.94	\$ 70.94	40.08%
52,000	179.04	250.80	\$ 71.76	40.08%
53,000	181.08	253.66	\$ 72.58	40.08%
54,000	183.12	256.52	\$ 73.40	40.08%
Average Usage				
32,500	\$ 139.26	\$ 195.03	\$ 55.77	40.05%
Median Usage				
30,000	\$ 134.16	\$ 187.88	\$ 53.72	40.04%

Present Rates:

Monthly Minimum:	\$ 76.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 106.40
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 2.32
Up to 999,999,999	\$ 2.86
Over 1,000,000,000	\$ 2.86

Arizona American - Tubac
 Bill Comparison
 Customer Classification
Step-One Rate Increase

TWRE 3 Inch

Exhibit
 Schedule H-4
 Page 5
 Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 90.00	\$ 126.00	\$ 36.00	40.00%
1,000	91.66	128.32	\$ 36.66	40.00%
2,000	93.32	130.64	\$ 37.32	39.99%
3,000	94.98	132.96	\$ 37.98	39.99%
4,000	96.64	135.28	\$ 38.64	39.98%
5,000	98.30	137.60	\$ 39.30	39.98%
6,000	99.96	139.92	\$ 39.96	39.98%
7,000	101.62	142.24	\$ 40.62	39.97%
8,000	103.28	144.56	\$ 41.28	39.97%
9,000	105.32	147.42	\$ 42.10	39.97%
10,000	107.36	150.28	\$ 42.92	39.98%
11,000	109.40	153.14	\$ 43.74	39.98%
12,000	111.44	156.00	\$ 44.56	39.99%
13,000	113.48	158.86	\$ 45.38	39.99%
14,000	115.52	161.72	\$ 46.20	39.99%
15,000	117.56	164.58	\$ 47.02	40.00%
16,000	119.60	167.44	\$ 47.84	40.00%
17,000	121.64	170.30	\$ 48.66	40.00%
18,000	123.68	173.16	\$ 49.48	40.01%
19,000	125.72	176.02	\$ 50.30	40.01%
20,000	127.76	178.88	\$ 51.12	40.01%
21,000	129.80	181.74	\$ 51.94	40.02%
22,000	131.84	184.60	\$ 52.76	40.02%

Average Usage				
3,538	\$ 95.87	\$ 134.21	\$ 38.34	39.99%
Median Usage				
-	\$ 90.00	\$ 126.00	\$ 36.00	40.00%

Present Rates:

Monthly Minimum:	\$ 90.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 126.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 2.32
Up to 999,999,999	\$ 2.86
Over 1,000,000,000	\$ 2.86

Arizona American - Tubac
 Bill Comparison
 Customer Classification
Step-One Rate Increase

TWCL 58 Inch

Exhibit
 Schedule H-4
 Page 6
 Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 15.35	\$ 21.49	\$ 6.14	40.00%
1,000	17.01	23.81	\$ 6.80	39.98%
2,000	18.67	26.13	\$ 7.46	39.96%
3,000	20.33	28.45	\$ 8.12	39.94%
4,000	21.99	30.77	\$ 8.78	39.93%
5,000	23.65	33.09	\$ 9.44	39.92%
6,000	25.31	35.41	\$ 10.10	39.91%
7,000	26.97	37.73	\$ 10.76	39.90%
8,000	28.63	40.05	\$ 11.42	39.89%
9,000	30.67	42.91	\$ 12.24	39.91%
10,000	32.71	45.77	\$ 13.06	39.93%
11,000	34.75	48.63	\$ 13.88	39.94%
12,000	36.79	51.49	\$ 14.70	39.96%
13,000	38.83	54.35	\$ 15.52	39.97%
14,000	40.87	57.21	\$ 16.34	39.98%
15,000	42.91	60.07	\$ 17.16	39.99%
16,000	44.95	62.93	\$ 17.98	40.00%
17,000	46.99	65.79	\$ 18.80	40.01%
18,000	49.03	68.65	\$ 19.62	40.02%
19,000	51.07	71.51	\$ 20.44	40.02%
20,000	53.11	74.37	\$ 21.26	40.03%
21,000	55.15	77.23	\$ 22.08	40.04%
22,000	57.19	80.09	\$ 22.90	40.04%
23,000	59.23	82.95	\$ 23.72	40.05%
24,000	61.27	85.81	\$ 24.54	40.05%
25,000	63.31	88.67	\$ 25.36	40.06%
26,000	65.35	91.53	\$ 26.18	40.06%
27,000	67.39	94.39	\$ 27.00	40.07%
28,000	69.43	97.25	\$ 27.82	40.07%
29,000	71.47	100.11	\$ 28.64	40.07%
30,000	73.51	102.97	\$ 29.46	40.08%
31,000	75.55	105.83	\$ 30.28	40.08%
32,000	77.59	108.69	\$ 31.10	40.08%
33,000	79.63	111.55	\$ 31.92	40.09%
34,000	81.67	114.41	\$ 32.74	40.09%
Average Usage				
9,090	\$ 30.85	\$ 43.17	\$ 12.31	39.91%
Median Usage				
5,000	\$ 23.65	\$ 33.09	\$ 9.44	39.92%

Present Rates:

Monthly Minimum:	\$ 15.35
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 999,999,999	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 21.49
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 2.32
Up to 999,999,999	\$ 2.86
Over 1,000,000,000	\$ 2.86

Arizona American - Tubac
 Bill Comparison
 Customer Classification
Step-One Rate Increase

TWCL 1 Inch

Exhibit
 Schedule H-4
 Page 7
 Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 23.00	\$ 32.20	\$ 9.20	40.00%
1,000	24.66	34.52	\$ 9.86	39.98%
2,000	26.32	36.84	\$ 10.52	39.97%
3,000	27.98	39.16	\$ 11.18	39.96%
4,000	29.64	41.48	\$ 11.84	39.95%
5,000	31.30	43.80	\$ 12.50	39.94%
6,000	32.96	46.12	\$ 13.16	39.93%
7,000	34.62	48.44	\$ 13.82	39.92%
8,000	36.28	50.76	\$ 14.48	39.91%
9,000	38.32	53.62	\$ 15.30	39.93%
10,000	40.36	56.48	\$ 16.12	39.94%
11,000	42.40	59.34	\$ 16.94	39.95%
12,000	44.44	62.20	\$ 17.76	39.96%
13,000	46.48	65.06	\$ 18.58	39.97%
14,000	48.52	67.92	\$ 19.40	39.98%
15,000	50.56	70.78	\$ 20.22	39.99%
16,000	52.60	73.64	\$ 21.04	40.00%
17,000	54.64	76.50	\$ 21.86	40.01%
18,000	56.68	79.36	\$ 22.68	40.01%
19,000	58.72	82.22	\$ 23.50	40.02%
20,000	60.76	85.08	\$ 24.32	40.03%
21,000	62.80	87.94	\$ 25.14	40.03%
22,000	64.84	90.80	\$ 25.96	40.04%
23,000	66.88	93.66	\$ 26.78	40.04%
24,000	68.92	96.52	\$ 27.60	40.05%
25,000	70.96	99.38	\$ 28.42	40.05%
26,000	73.00	102.24	\$ 29.24	40.05%
27,000	75.04	105.10	\$ 30.06	40.06%
28,000	77.08	107.96	\$ 30.88	40.06%
29,000	79.12	110.82	\$ 31.70	40.07%
30,000	81.16	113.68	\$ 32.52	40.07%
31,000	83.20	116.54	\$ 33.34	40.07%
32,000	85.24	119.40	\$ 34.16	40.08%
33,000	87.28	122.26	\$ 34.98	40.08%
34,000	89.32	125.12	\$ 35.80	40.08%
35,000	91.36	127.98	\$ 36.62	40.08%
36,000	93.40	130.84	\$ 37.44	40.09%
37,000	95.44	133.70	\$ 38.26	40.09%
38,000	97.48	136.56	\$ 39.08	40.09%
39,000	99.52	139.42	\$ 39.90	40.09%
40,000	101.56	142.28	\$ 40.72	40.09%

Average Usage

19,172 \$ 59.07 \$ 82.71 \$ 23.64 40.02%

Median Usage

8,000 \$ 36.28 \$ 50.76 \$ 14.48 39.91%

Present Rates:

Monthly Minimum: \$ 23.00
 Gallons in Minimum -
 Charge Per 1,000 Gallons
 Up to 8,000 \$ 1.66
 Up to 999,999,999 \$ 2.04
 Over 1,000,000,000 \$ 2.04
 \$ 2.04

Proposed Rates:

Monthly Minimum: \$ 32.20
 Gallons in Minimum -
 Charge Per 1,000 Gallons
 Up to 8,000 \$ 2.32
 Up to 999,999,999 \$ 2.86
 Over 1,000,000,000 \$ 2.86
 \$ 2.86

Arizona American - Tubac
 Bill Comparison
 Customer Classification
Step-One Rate Increase

TWCL 1.5 Inch

Exhibit
 Schedule H-4
 Page 8
 Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 46.00	\$ 64.40	\$ 18.40	40.00%
1,000	47.66	66.72	\$ 19.06	39.99%
2,000	49.32	69.04	\$ 19.72	39.98%
3,000	50.98	71.36	\$ 20.38	39.98%
4,000	52.64	73.68	\$ 21.04	39.97%
5,000	54.30	76.00	\$ 21.70	39.96%
6,000	55.96	78.32	\$ 22.36	39.96%
7,000	57.62	80.64	\$ 23.02	39.95%
8,000	59.28	82.96	\$ 23.68	39.95%
9,000	61.32	85.82	\$ 24.50	39.95%
10,000	63.36	88.68	\$ 25.32	39.96%
11,000	65.40	91.54	\$ 26.14	39.97%
12,000	67.44	94.40	\$ 26.96	39.98%
13,000	69.48	97.26	\$ 27.78	39.98%
14,000	71.52	100.12	\$ 28.60	39.99%
15,000	73.56	102.98	\$ 29.42	39.99%
16,000	75.60	105.84	\$ 30.24	40.00%
17,000	77.64	108.70	\$ 31.06	40.01%
18,000	79.68	111.56	\$ 31.88	40.01%
19,000	81.72	114.42	\$ 32.70	40.01%
20,000	83.76	117.28	\$ 33.52	40.02%
21,000	85.80	120.14	\$ 34.34	40.02%
22,000	87.84	123.00	\$ 35.16	40.03%
23,000	89.88	125.86	\$ 35.98	40.03%
24,000	91.92	128.72	\$ 36.80	40.03%
25,000	93.96	131.58	\$ 37.62	40.04%
26,000	96.00	134.44	\$ 38.44	40.04%
27,000	98.04	137.30	\$ 39.26	40.04%
28,000	100.08	140.16	\$ 40.08	40.05%
29,000	102.12	143.02	\$ 40.90	40.05%
30,000	104.16	145.88	\$ 41.72	40.05%
31,000	106.20	148.74	\$ 42.54	40.06%
32,000	108.24	151.60	\$ 43.36	40.06%
33,000	110.28	154.46	\$ 44.18	40.06%
34,000	112.32	157.32	\$ 45.00	40.06%
35,000	114.36	160.18	\$ 45.82	40.07%
36,000	116.40	163.04	\$ 46.64	40.07%
37,000	118.44	165.90	\$ 47.46	40.07%
38,000	120.48	168.76	\$ 48.28	40.07%
39,000	122.52	171.62	\$ 49.10	40.08%
40,000	124.56	174.48	\$ 49.92	40.08%
41,000	126.60	177.34	\$ 50.74	40.08%
Average Usage				
35,167	\$ 114.70	\$ 160.66	\$ 45.96	40.07%
Median Usage				
26,000	\$ 96.00	\$ 134.44	\$ 38.44	40.04%

Present Rates:

Monthly Minimum:	\$ 46.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04
	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 64.40
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 2.32
Up to 999,999,999	\$ 2.86
Over 1,000,000,000	\$ 2.86
	\$ 2.86

Arizona American - Tubac
 Bill Comparison
 Customer Classification
Step-One Rate Increase

TWCL 2 Inch

Exhibit
 Schedule H-4
 Page 9
 Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 76.00	\$ 106.40	\$ 30.40	40.00%
1,000	77.66	108.72	\$ 31.06	39.99%
2,000	79.32	111.04	\$ 31.72	39.99%
3,000	80.98	113.36	\$ 32.38	39.99%
4,000	82.64	115.68	\$ 33.04	39.98%
5,000	84.30	118.00	\$ 33.70	39.98%
6,000	85.96	120.32	\$ 34.36	39.97%
7,000	87.62	122.64	\$ 35.02	39.97%
8,000	89.28	124.96	\$ 35.68	39.96%
9,000	91.32	127.82	\$ 36.50	39.97%
10,000	93.36	130.68	\$ 37.32	39.97%
11,000	95.40	133.54	\$ 38.14	39.98%
12,000	97.44	136.40	\$ 38.96	39.98%
13,000	99.48	139.26	\$ 39.78	39.99%
14,000	101.52	142.12	\$ 40.60	39.99%
15,000	103.56	144.98	\$ 41.42	40.00%
16,000	105.60	147.84	\$ 42.24	40.00%
17,000	107.64	150.70	\$ 43.06	40.00%
18,000	109.68	153.56	\$ 43.88	40.01%
19,000	111.72	156.42	\$ 44.70	40.01%
20,000	113.76	159.28	\$ 45.52	40.01%
21,000	115.80	162.14	\$ 46.34	40.02%
22,000	117.84	165.00	\$ 47.16	40.02%
23,000	119.88	167.86	\$ 47.98	40.02%
24,000	121.92	170.72	\$ 48.80	40.03%
284,000	652.32	914.32	\$ 262.00	40.16%
301,000	687.00	962.94	\$ 275.94	40.17%
317,000	719.64	1,008.70	\$ 289.06	40.17%
345,000	776.76	1,088.78	\$ 312.02	40.17%
330,000	746.16	1,045.88	\$ 299.72	40.17%
344,000	774.72	1,085.92	\$ 311.20	40.17%
319,000	723.72	1,014.42	\$ 290.70	40.17%
253,000	589.08	825.66	\$ 236.58	40.16%
336,000	758.40	1,063.04	\$ 304.64	40.17%
202,000	485.04	679.80	\$ 194.76	40.15%
273,000	629.88	882.86	\$ 252.98	40.16%
289,000	662.52	928.62	\$ 266.10	40.16%
Average Usage				
159,167	\$ 397.66	\$ 557.30	\$ 159.64	40.14%
Median Usage				
29,000	\$ 132.12	\$ 185.02	\$ 52.90	40.04%

Present Rates:

Monthly Minimum:	\$ 76.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04
	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 106.40
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 2.32
Up to 999,999,999	\$ 2.86
Over 1,000,000,000	\$ 2.86
	\$ 2.86

Arizona American - Tubac
 Bill Comparison
 Customer Classification
Step-One Rate Increase

TWCL 3 Inch

Exhibit
 Schedule H-4
 Page 10
 Witness: Kozoman

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 90.00	\$ 126.00	\$ 36.00	40.00%
1,000	91.66	128.32	\$ 36.66	40.00%
2,000	93.32	130.64	\$ 37.32	39.99%
3,000	94.98	132.96	\$ 37.98	39.99%
4,000	96.64	135.28	\$ 38.64	39.98%
5,000	98.30	137.60	\$ 39.30	39.98%
6,000	99.96	139.92	\$ 39.96	39.98%
7,000	101.62	142.24	\$ 40.62	39.97%
8,000	103.28	144.56	\$ 41.28	39.97%
9,000	105.32	147.42	\$ 42.10	39.97%
10,000	107.36	150.28	\$ 42.92	39.98%
11,000	109.40	153.14	\$ 43.74	39.98%
12,000	111.44	156.00	\$ 44.56	39.99%
13,000	113.48	158.86	\$ 45.38	39.99%
14,000	115.52	161.72	\$ 46.20	39.99%
15,000	117.56	164.58	\$ 47.02	40.00%
16,000	119.60	167.44	\$ 47.84	40.00%
17,000	121.64	170.30	\$ 48.66	40.00%
18,000	123.68	173.16	\$ 49.48	40.01%
19,000	125.72	176.02	\$ 50.30	40.01%
20,000	127.76	178.88	\$ 51.12	40.01%
21,000	129.80	181.74	\$ 51.94	40.02%
22,000	131.84	184.60	\$ 52.76	40.02%
23,000	133.88	187.46	\$ 53.58	40.02%
24,000	135.92	190.32	\$ 54.40	40.02%
25,000	137.96	193.18	\$ 55.22	40.03%
26,000	140.00	196.04	\$ 56.04	40.03%
27,000	142.04	198.90	\$ 56.86	40.03%
28,000	144.08	201.76	\$ 57.68	40.03%
29,000	146.12	204.62	\$ 58.50	40.04%
30,000	148.16	207.48	\$ 59.32	40.04%
31,000	150.20	210.34	\$ 60.14	40.04%
Average Usage				
22,833	\$ 133.54	\$ 186.98	\$ 53.44	40.02%
Median Usage				
6,000	\$ 99.96	\$ 139.92	\$ 39.96	39.98%

Present Rates:

Monthly Minimum:	\$ 90.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 1.66
Up to 999,999,999	\$ 2.04
Over 1,000,000,000	\$ 2.04

Proposed Rates:

Monthly Minimum:	\$ 126.00
Gallons in Minimum	-
Charge Per 1,000 Gallons	
Up to 8,000	\$ 2.32
Up to 999,999,999	\$ 2.86
Over 1,000,000,000	\$ 2.86



Arizona American - Tubac

Test Year Ended December 31, 2001

Customer Classification

TWRE 5/8 Inch

Exhibit
Schedule H-5
Page 1
Witness: Kozoman

Usage From:	Usage To:	Month of Jan-01	Month of Feb-01	Month of Mar-01	Month of Apr-01	Month of May-01	Month of Jun-01	Month of Jul-01	Month of Aug-01	Month of Sep-01	Month of Oct-01	Month of Nov-01	Month of Dec-01	Total Year
1,000	1,000	16	18	16	14	11	13	21	28	24	32	21	11	225
2,000	2,000	22	21	16	19	17	17	20	26	21	23	27	16	245
3,000	3,000	28	25	25	14	20	25	20	21	26	21	18	24	267
4,000	4,000	37	33	31	19	26	14	19	30	15	20	27	25	296
5,000	5,000	22	48	45	30	22	28	14	23	17	26	25	24	324
6,000	6,000	37	37	35	24	21	20	19	27	21	23	26	23	313
7,000	7,000	32	32	41	30	21	22	22	22	22	22	25	28	319
8,000	8,000	33	20	23	28	28	21	15	26	27	25	21	28	295
9,000	9,000	21	19	23	22	25	12	15	21	22	15	24	11	230
10,000	10,000	20	24	24	22	14	10	9	17	16	13	17	20	206
11,000	11,000	15	14	15	19	11	19	10	7	12	11	13	17	163
12,000	12,000	7	18	8	11	10	15	20	10	17	15	12	12	155
13,000	13,000	13	10	13	15	19	7	13	13	9	12	4	9	137
14,000	14,000	5	9	9	17	18	18	11	12	11	5	13	8	136
15,000	15,000	8	8	7	9	7	10	14	4	9	5	12	11	104
16,000	16,000	9	4	5	7	10	8	10	6	13	16	10	5	103
17,000	17,000	5	3	3	7	9	6	11	3	7	4	3	14	82
18,000	18,000	9	4	7	10	12	12	6	3	3	7	9	9	91
19,000	19,000	10	4	7	9	7	5	5	8	6	8	4	8	81
20,000	20,000	4	5	1	4	12	4	9	3	7	8	3	4	64
21,000	21,000	3	6	4	5	5	3	4	4	7	2	1	6	50
22,000	22,000	1	6	6	6	5	7	7	5	2	4	6	3	58
23,000	23,000	5	1	2	4	4	7	3	6	7	7	8	8	62
24,000	24,000	5	4	3	2	4	5	9	7	2	3	10	9	63
25,000	25,000	2	-	5	4	1	5	7	4	1	5	6	6	46
26,000	26,000	1	5	-	5	2	6	10	3	2	6	1	3	44
27,000	27,000	2	2	3	2	3	5	2	2	6	7	9	2	45
28,000	28,000	2	2	1	5	5	6	1	5	3	2	2	8	42
29,000	29,000	1	1	3	1	3	5	6	-	1	5	3	3	32
30,000	30,000	1	1	-	4	3	3	4	3	4	2	1	-	26
31,000	31,000	2	-	1	3	2	1	5	6	5	3	2	4	34
32,000	32,000	4	1	2	2	6	5	-	2	2	2	2	2	29
33,000	33,000	-	1	2	4	1	3	2	3	4	5	2	2	29
34,000	34,000	-	2	2	3	2	1	1	3	2	1	1	1	19
35,000	35,000	1	1	1	-	2	2	2	1	3	1	2	4	20
36,000	36,000	2	-	1	1	1	2	4	2	2	2	-	1	18
37,000	37,000	2	1	-	2	3	2	4	1	2	2	5	2	26
38,000	38,000	-	1	-	-	2	1	2	2	3	3	2	6	22
39,000	39,000	2	-	-	1	-	2	2	-	2	1	2	-	10
40,000	40,000	1	1	-	2	1	2	1	3	2	1	1	-	15
41,000	41,000	-	-	3	-	1	3	2	1	2	3	1	3	19
42,000	42,000	1	-	1	1	1	1	4	-	5	1	1	2	18
43,000	43,000	-	1	1	-	1	4	2	1	2	2	5	4	23
44,000	44,000	1	-	-	1	1	3	1	1	3	2	-	1	14
45,000	45,000	-	-	-	-	2	2	2	-	2	3	-	-	11
46,000	46,000	-	-	1	-	1	1	2	3	2	1	1	2	14
		-	-	-	-	1	1	3	1	1	-	1	1	9

Arizona American - Tubac

Test Year Ended December 31, 2001
Customer Classification

TWRE 5/8 Inch

Exhibit
Schedule H-5
Page 1a
Witness: Kozoman

Usage From:	Usage To:	Month of Jan-01	Month of Feb-01	Month of Mar-01	Month of Apr-01	Month of May-01	Month of Jun-01	Month of Jul-01	Month of Aug-01	Month of Sep-01	Month of Oct-01	Month of Nov-01	Month of Dec-01	Total Year
47,000	47,000	-	-	-	-	1	-	-	3	1	2	2	-	9
48,000	48,000	1	-	-	1	1	2	-	1	-	-	1	-	7
49,000	49,000	1	-	-	-	1	2	-	-	-	2	-	1	7
50,000	50,000	-	1	-	-	-	1	3	-	-	-	-	1	7
51,000	51,000	-	-	-	1	2	3	2	-	-	1	1	-	10
52,000	52,000	-	-	-	1	-	1	-	1	1	-	-	-	4
53,000	53,000	-	-	-	1	-	-	2	-	1	1	-	1	6
54,000	54,000	-	-	1	2	-	1	1	-	1	2	1	-	9
55,000	55,000	1	1	-	1	1	1	1	-	-	1	-	1	8
56,000	56,000	-	1	-	1	1	-	1	1	1	1	-	1	6
57,000	57,000	-	-	-	-	-	-	3	-	-	1	-	-	4
58,000	58,000	-	-	1	-	-	1	-	-	-	-	-	-	2
59,000	59,000	-	-	-	-	-	2	-	1	1	-	-	1	5
60,000	60,000	1	-	-	-	-	1	-	1	-	-	-	-	3
61,000	61,000	-	-	-	-	1	-	1	-	-	-	-	-	2
62,000	62,000	-	-	-	1	1	1	-	-	1	-	1	-	5
63,000	63,000	-	-	-	1	1	-	1	1	1	-	-	1	6
64,000	64,000	-	-	-	-	1	-	1	1	-	-	2	-	5
65,000	65,000	-	-	-	1	-	2	1	-	-	1	-	1	6
66,000	66,000	-	-	-	-	-	-	-	-	-	-	-	-	-
67,000	67,000	1	-	-	1	-	-	-	-	-	-	-	1	3
68,000	68,000	-	-	-	-	1	-	-	1	2	-	1	-	5
69,000	69,000	-	-	-	-	1	-	-	-	-	1	-	1	4
70,000	70,000	-	-	-	-	-	-	1	-	-	-	-	-	1
71,000	71,000	-	-	-	-	-	-	1	1	1	-	-	-	3
72,000	72,000	-	-	-	-	-	-	-	-	1	-	1	-	2
73,000	73,000	-	-	-	-	-	-	-	-	-	-	-	-	1
74,000	74,000	-	-	-	-	1	1	-	-	-	-	-	1	3
75,000	75,000	-	-	-	-	-	1	-	-	-	-	-	-	1
76,000	76,000	-	-	-	-	-	-	1	-	-	-	-	-	1
77,000	77,000	-	-	-	-	-	-	-	-	-	-	-	-	-
78,000	78,000	-	-	-	-	1	-	-	-	-	-	-	-	1
79,000	79,000	-	-	-	-	-	2	-	-	-	-	-	-	2
80,000	80,000	-	-	-	-	-	-	-	-	-	-	-	-	-
81,000	81,000	-	-	-	-	1	-	-	-	-	-	1	1	2
82,000	82,000	-	-	-	-	-	1	1	-	-	1	-	-	4
83,000	83,000	-	-	-	-	-	-	-	1	-	-	-	-	1
84,000	84,000	-	-	-	-	-	-	1	-	-	-	-	-	1
85,000	85,000	-	-	-	-	-	-	-	-	-	-	-	-	1
86,000	86,000	-	-	-	-	-	-	1	-	-	-	-	-	3
87,000	87,000	-	-	-	-	-	-	1	-	1	-	-	-	2
88,000	88,000	-	-	-	-	1	1	-	-	-	-	-	-	2
89,000	89,000	-	1	-	-	-	-	-	-	-	-	-	-	1
90,000	90,000	-	-	-	-	-	-	-	-	-	-	-	-	-
91,000	91,000	-	-	-	-	-	-	-	-	-	-	-	-	-
92,000	92,000	-	-	-	-	-	-	1	-	-	-	-	-	1

Arizona American - Tubac
 Test Year Ended December 31, 2001
 Customer Classification

TWRE 5/8 Inch

Exhibit
 Schedule H-5
 Page 1b
 Witness: Kozoman

Usage From:	Usage To:	Month of Jan-01	Month of Feb-01	Month of Mar-01	Month of Apr-01	Month of May-01	Month of Jun-01	Month of Jul-01	Month of Aug-01	Month of Sep-01	Month of Oct-01	Month of Nov-01	Month of Dec-01	Total Year
93,000	93,000	-	-	-	-	-	-	-	-	-	-	-	-	1
94,000	94,000	-	-	-	1	-	-	-	-	-	-	-	-	-
95,000	95,000	-	-	-	-	-	-	-	-	-	-	-	-	-
96,000	96,000	-	-	-	-	-	-	-	-	-	-	-	-	-
97,000	97,000	-	-	-	-	-	-	-	-	-	1	-	-	1
98,000	98,000	-	-	-	-	-	-	-	-	-	-	-	-	-
99,000	99,000	-	-	-	-	-	-	-	-	-	-	-	-	-
109,000	109,000	1	-	-	-	-	-	-	-	-	-	-	1	2
131,000	131,000	-	-	1	-	-	-	-	-	-	-	-	-	1
155,000	155,000	-	-	-	-	-	-	-	-	-	-	-	-	1
128,000	128,000	-	-	-	-	-	1	-	-	-	-	-	-	1
106,000	106,000	-	-	-	-	-	1	-	-	-	-	-	-	1
118,000	118,000	-	-	-	-	-	1	-	-	-	-	-	-	1
222,000	222,000	-	-	-	-	-	-	1	-	-	-	-	-	1
116,000	116,000	-	-	-	-	-	-	1	-	-	-	-	-	1
103,000	103,000	-	-	-	-	-	-	1	-	-	-	-	-	1
127,000	127,000	-	-	-	-	-	-	1	-	-	-	-	-	1
168,000	168,000	-	-	-	-	-	-	-	1	-	-	-	-	1
163,000	163,000	-	-	-	-	-	-	-	-	1	-	-	-	1
162,000	162,000	-	-	-	-	-	-	-	-	-	-	-	-	1
132,000	132,000	-	-	-	-	-	-	-	-	-	1	-	-	1
125,000	125,000	-	-	-	-	-	-	-	-	-	1	-	-	1
111,000	111,000	-	-	-	-	-	-	-	-	-	-	1	-	1
104,000	104,000	-	-	-	-	-	-	-	-	-	-	1	-	1
138,000	138,000	-	-	-	-	-	-	-	-	-	-	1	-	1
215,000	215,000	-	-	-	-	-	-	-	-	-	-	1	-	1
Totals		398	397	398	400	401	402	403	402	402	405	403	403	4,814
														13,177
														8,000
														401
														5

Average Usage
 Median Usage
 Average # Customers
 Change in Number of Customers

Arizona American - Tubac

Test Year Ended December 31, 2001

Customer Classification

TWRE 1 Inch

Exhibit

Schedule H-5

Page 2

Witness: Kozoman

Usage From:	Usage To:	Month of Jan-01	Month of Feb-01	Month of Mar-01	Month of Apr-01	Month of May-01	Month of Jun-01	Month of Jul-01	Month of Aug-01	Month of Sep-01	Month of Oct-01	Month of Nov-01	Month of Dec-01	Total Year
1,000	1,000	-	-	1	1	2	1	2	1	1	2	-	1	13
2,000	2,000	-	-	1	-	-	-	-	1	-	-	1	1	5
3,000	3,000	-	-	-	1	1	-	-	-	1	-	-	-	3
4,000	4,000	2	1	2	1	-	-	1	2	-	1	-	-	11
5,000	5,000	3	-	3	1	1	1	-	1	1	1	1	1	14
6,000	6,000	1	2	2	1	1	3	1	-	-	1	2	1	15
7,000	7,000	1	3	-	2	1	1	-	1	1	-	-	1	11
8,000	8,000	-	3	1	-	1	-	1	-	2	2	-	2	12
9,000	9,000	-	1	-	-	-	-	-	1	1	-	1	1	5
10,000	10,000	1	-	1	-	1	-	1	1	-	-	-	-	5
11,000	11,000	-	1	1	1	-	1	2	-	-	-	1	-	8
12,000	12,000	-	-	2	1	-	-	-	-	-	1	-	-	4
13,000	13,000	-	-	3	1	-	1	-	1	1	2	-	2	11
14,000	14,000	-	1	-	-	-	-	1	2	-	1	2	1	8
15,000	15,000	3	1	1	-	-	-	-	-	1	-	-	-	7
16,000	16,000	1	1	-	1	1	2	-	-	1	1	-	-	9
17,000	17,000	1	-	-	-	-	-	-	1	-	-	1	-	3
18,000	18,000	2	-	-	-	1	-	-	-	-	-	-	-	3
19,000	19,000	-	-	-	3	-	-	1	-	2	-	-	2	9
20,000	20,000	-	1	-	-	1	1	-	1	1	-	1	1	5
21,000	21,000	-	-	-	1	3	-	-	-	-	-	-	-	6
22,000	22,000	-	-	-	-	-	-	-	-	-	-	-	1	2
23,000	23,000	-	-	-	-	1	-	1	2	-	2	-	-	5
24,000	24,000	-	-	-	-	-	-	-	-	-	-	1	-	6
25,000	25,000	-	-	1	-	-	-	-	-	-	-	-	-	-
26,000	26,000	-	-	-	-	-	-	-	-	-	-	-	-	2
27,000	27,000	-	-	-	-	-	-	-	-	-	-	1	-	1
28,000	28,000	-	-	-	1	-	-	1	-	-	-	-	-	3
29,000	29,000	-	-	-	-	-	-	-	-	1	-	-	-	2
30,000	30,000	-	-	-	-	-	-	1	-	-	-	-	-	1
31,000	31,000	-	-	-	-	-	-	-	-	1	-	-	-	2
32,000	32,000	-	-	-	-	1	-	-	-	-	1	-	-	2
33,000	33,000	-	-	-	-	-	1	-	-	-	-	-	2	3
34,000	34,000	-	-	-	-	-	1	2	-	-	-	-	2	1
35,000	35,000	-	-	-	-	-	-	1	-	-	-	-	1	5
36,000	36,000	-	-	-	-	-	-	-	-	-	-	-	-	1
37,000	37,000	1	-	-	-	-	-	-	-	1	-	-	-	1
38,000	38,000	-	-	-	-	-	-	1	-	-	-	-	-	1
39,000	39,000	-	-	-	-	-	-	-	-	-	-	-	-	1
40,000	40,000	-	-	-	-	-	-	-	-	-	-	-	-	1
41,000	41,000	-	-	-	-	-	-	-	-	-	-	-	-	-
42,000	42,000	-	-	-	-	-	-	-	-	-	-	-	-	-
43,000	43,000	-	-	-	-	-	1	-	-	-	-	-	-	1
44,000	44,000	-	-	-	-	-	-	-	-	-	-	-	-	1
45,000	45,000	-	-	-	-	-	-	1	-	-	1	-	-	1
46,000	46,000	-	-	-	-	1	-	-	-	-	-	-	-	1

Test Year Ended December 31, 2001

Customer Classification

TWRE 1 Inch

Exhibit
Schedule H-5
Page 2a
Witness: Kozoman

[illegible]

Customer Classification

Exhibit
Schedule H-5
Page 2b
Witness: Kozoman

[illegible]

Test Year Ended December 31, 2001

TWRE 1.5 Inch

Exhibit

Schedule H-5

Page 3

Witness: Kozoman

[illegible]

Test Year Ended December 31, 2001

Customer Classification

TWRE 2 Inch

Exhibit

Schedule H-5

Page 4

Witness: Kozoman

[illegible]

Test Year Ended December 31, 2001
Customer Classification

Exhibit
Schedule H-5
Page 5
Witness: Kozoman

[illegible]

Test Year Ended December 31, 2001.
Customer Classification

Exhibit
Schedule H-5
Page 6
Witness: Kozoman

[illegible]

Test Year Ended December 31, 2001

Customer Classification

TWCL 58 Inch

Exhibit

Schedule H-5

Page 6a

Witness: Kozoman

[illegible]

Test Year Ended December 31, 2001

Customer Classification

TWCL 58 Inch

Exhibit
Schedule H-5
Page 6b
Witness: Kozoman

[illegible]

Test Year Ended December 31, 2001

Customer Classification

TWCL 1 Inch

Exhibit

Schedule H-5

Page 7

Witness: Kozoman

[illegible]

TWCL 1 Inch

Exhibit
Schedule H-5
Page 7a
Witness: Kozoman

[illegible]

Customer Classification

Exhibit
Schedule H-5
Page 7b
Witness: Kozoman

[illegible]

Test Year Ended December 31, 2001

Customer Classification

TWCL 1.5 Inch

Exhibit

Schedule H-5

Page 8

Witness: Kozoman

Usage From:	Usage To:	Month of Jan-01	Month of Feb-01	Month of Mar-01	Month of Apr-01	Month of May-01	Month of Jun-01	Month of Jul-01	Month of Aug-01	Month of Sep-01	Month of Oct-01	Month of Nov-01	Month of Dec-01	Total Year
13,000	13,000	1												1
14,000	14,000													-
15,000	15,000													-
16,000	16,000													-
17,000	17,000	1												1
18,000	18,000													-
19,000	19,000			1										1
20,000	20,000		1	1										2
21,000	21,000				1									1
22,000	22,000		1			1								1
23,000	23,000				1							1		3
24,000	24,000						1							-
25,000	25,000							1						1
26,000	26,000					1								1
27,000	27,000													-
28,000	28,000													-
29,000	29,000													-
30,000	30,000													-
31,000	31,000													-
32,000	32,000													-
33,000	33,000													-
34,000	34,000													-
35,000	35,000													-
36,000	36,000													1
37,000	37,000						1		1				1	-
38,000	38,000													2
39,000	39,000									1				1
40,000	40,000								1					1
41,000	41,000													-
42,000	42,000													-
43,000	43,000													-
44,000	44,000													-
45,000	45,000													-
46,000	46,000							1						1
47,000	47,000									1				1
48,000	48,000										1			1
49,000	49,000													-
50,000	50,000													-
51,000	51,000													-
52,000	52,000													-
53,000	53,000													-
54,000	54,000													-
55,000	55,000													-
56,000	56,000							1						1
57,000	57,000													-
58,000	58,000													-
59,000	59,000													-

Arizona American - Tubac

Test Year Ended December 31, 2001

Customer Classification

TWCL 1.5 Inch

Exhibit

Schedule H-5

Page 8a

Witness: Kozoman

Usage From:	Usage To:	Month of Jan-01	Month of Feb-01	Month of Mar-01	Month of Apr-01	Month of May-01	Month of Jun-01	Month of Jul-01	Month of Aug-01	Month of Sep-01	Month of Oct-01	Month of Nov-01	Month of Dec-01	Total Year
60,000	60,000	-	-	-	-	-	-	-	-	-	-	-	-	-
61,000	61,000	-	-	-	-	-	-	-	-	-	-	-	-	-
62,000	62,000	-	-	-	-	-	-	-	-	-	-	-	-	-
63,000	63,000	-	-	-	-	-	-	-	-	-	-	-	-	-
64,000	64,000	-	-	-	-	-	-	-	-	-	-	-	-	-
65,000	65,000	-	-	-	-	-	-	-	-	-	-	-	-	-
66,000	66,000	-	-	-	-	-	-	-	-	-	-	-	-	-
67,000	67,000	-	-	-	-	-	-	-	-	-	-	-	-	-
68,000	68,000	-	-	-	-	-	-	-	-	-	-	-	-	-
69,000	69,000	-	-	-	-	-	-	-	-	-	-	-	-	-
70,000	70,000	-	-	-	-	-	-	-	-	-	-	-	-	-
71,000	71,000	-	-	-	-	-	-	-	-	-	-	-	-	-
72,000	72,000	-	-	-	-	-	-	-	-	-	-	-	-	-
73,000	73,000	-	-	-	-	-	-	-	-	-	-	-	-	-
74,000	74,000	-	-	-	-	-	-	-	-	-	-	-	-	-
75,000	75,000	-	-	-	-	-	-	-	-	-	-	-	-	-
76,000	76,000	-	-	-	-	-	-	-	-	-	-	-	-	-
77,000	77,000	-	-	-	-	-	-	-	-	-	-	-	-	-
78,000	78,000	-	-	-	-	-	-	-	-	-	-	-	-	-
79,000	79,000	-	-	-	-	-	-	-	-	-	-	-	-	-
80,000	80,000	-	-	-	-	-	-	-	-	-	-	-	-	-
81,000	81,000	-	-	-	-	-	-	-	-	-	-	-	-	-
82,000	82,000	-	-	-	-	-	-	-	-	-	-	-	-	-
83,000	83,000	-	-	-	-	-	-	-	-	-	-	-	-	-
84,000	84,000	-	-	-	-	-	-	-	-	-	-	-	-	-
85,000	85,000	-	-	-	-	-	-	-	-	-	-	-	-	-
86,000	86,000	-	-	-	-	-	-	-	-	-	-	-	-	-
87,000	87,000	-	-	-	-	-	-	-	-	-	-	-	-	-
88,000	88,000	-	-	-	-	-	-	-	-	-	-	-	-	-
89,000	89,000	-	-	-	-	-	-	-	-	-	-	-	-	-
90,000	90,000	-	-	-	-	-	-	-	-	-	-	-	-	-
91,000	91,000	-	-	-	-	-	-	-	-	-	-	-	-	-
92,000	92,000	-	-	-	-	-	-	-	-	-	-	-	-	-
93,000	93,000	-	-	-	-	-	-	-	-	-	-	-	-	-
94,000	94,000	-	-	-	-	-	-	-	-	-	-	-	-	-
95,000	95,000	-	-	-	-	-	-	-	-	-	-	-	-	-
96,000	96,000	-	-	-	-	-	-	-	-	-	-	-	-	-
97,000	97,000	-	-	-	-	-	-	-	-	-	-	-	-	-
98,000	98,000	-	-	-	-	-	-	-	-	-	-	-	-	-
99,000	99,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals		2	2	2	2	2	2	2	2	2	2	2	2	24
														35,167
														26,000
														2
														-

Average Usage

Median Usage

Average # Customers

Change in Number of Customers

TWCL 2 Inch

TWCL 2 Inch

[illegible]

Arizona American - Tubac
 Test Year Ended December 31, 2001
 Customer Classification

TWCL 3 Inch

Exhibit
 Schedule H-5
 Page 10
 Witness: Kozoman

Usage From:	Usage To:	Month of Jan-01	Month of Feb-01	Month of Mar-01	Month of Apr-01	Month of May-01	Month of Jun-01	Month of Jul-01	Month of Aug-01	Month of Sep-01	Month of Oct-01	Month of Nov-01	Month of Dec-01	Total Year
1,000	1,000	-	-	-	-	-	-	-	-	1	-	-	-	1
2,000	2,000	-	-	-	-	-	-	-	-	-	-	-	1	1
3,000	3,000	-	-	-	-	-	-	-	-	-	-	-	-	-
4,000	4,000	-	-	-	-	-	-	-	-	-	-	-	-	-
5,000	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-
6,000	6,000	-	-	-	-	-	-	-	-	-	1	-	-	1
7,000	7,000	-	-	-	-	-	-	-	-	-	-	-	-	-
8,000	8,000	-	-	-	-	-	-	-	-	-	-	-	-	-
9,000	9,000	-	-	-	-	-	-	-	-	-	-	-	-	-
10,000	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-
11,000	11,000	-	-	-	-	-	-	-	-	-	-	-	-	-
12,000	12,000	-	-	-	-	-	-	-	-	-	-	1	-	1
43,000	43,000	-	-	-	-	-	-	-	1	-	-	-	-	1
44,000	44,000	-	-	-	-	-	-	-	-	-	-	-	-	-
74,000	74,000	-	-	-	-	-	-	-	-	-	-	1	-	1
Totals		-	-	-	-	-	-	1	1	1	1	2	1	6
														22,833
														6,000
														1
														1

Average Usage
 Median Usage
 Average # Customers
 Change in Number of Customers